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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re application of: Richard Alan Barraclough

Filed: Dec. 27, 2001

Serial Number: 10/034467

Title: Wizard Builder For Application Software

Examiner: Ryan F. Pitaro

Group Art Unit: 2174

Declaration Under Rule 131

United Kingdom

County of Cheshire

I, Richard Alan Barraclough, do hereby declare and say the following.

My address is Chorley Lodge, Knutsford Road, Alderley Edge, Cheshire SK9 7SF, United Kingdom.

I am the Inventor of the Invention in the above Application, which is assigned to ExperTune, Inc. This Declaration refers to the Invention as covered in the application claims (Exhibit A attached) as submitted to the Patent Office in our Amendment and Response submitted June 26, 2007. Attached to this Declaration is a true copy of a document prepared by me and labeled Exhibit B showing that the Invention of the above Application was completed by me, by both conception and reduction to practice, by

building and testing, in the United Kingdom at least as early as November 24, 2000. Exhibit B also shows how parts of the program and screen shots relate to the claims of the Application.

I further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief, are believed to be true; and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the patent application or any patents issuing therefrom.

RABarrac

Richard Alan Barraclough, Inventor

30 October 2007

(date)

EXHIBIT A {CLAIMS IN JUNE 26, 2007 RESPONSE TO PTO}

This listing of claims will replace all prior versions, and listings, of claims in the Application.

Listing of Claims:

1. (Currently amended) A computer program process, called a wizard builder, executable on a computer, for adapting an application program to function with a Single Loop Controller, Programmable Logic Controller, or Distributed Control System , wherein the wizard builder constructs a setup wizard which sets up a de facto interface between a Single Loop Controller, Programmable Logic Controller, or Distributed Control System and the application program, wherein the setup wizard is constructed by means of asking a human user of the application program for answers to simple verbal questions, in English or other language convenient to a human user, about the model and manufacturer of the Single Loop Controller, Programmable Logic Controller, or Distributed Control System , and wherein the wizard builder does not require a human user to have any knowledge of writing or using computer programs.

2. (Currently amended) The process of claim 1, further comprising a computer program process, wherein a human user of the application program can alter the setup wizard, thus creating another setup wizard, which can be run to set up an application program with connection details and properties of other Single Loop Controllers, Programmable Logic Controllers, or Distributed Control Systems .

3. (Original) The process of claim 1, further comprising a computer program process, wherein the setup wizard constructed by the computer program process is adapted to be moved to another computer by a human user without any knowledge of writing computer programs.

4. (Original) The process of claim 3, wherein the setup wizard is in the form of a disk file that can be readily moved to another computer.

5. (Currently amended) The process of claim 2, wherein the setup wizard is adapted to be altered by the wizard builder program which displays original answers to the verbal or other suitable language questions and provides a prompt for a human user to enter new answers about the Single Loop Controller, Programmable Logic Controller, or Distributed Control System .

6. (Currently amended) The process of claim 1, further comprising a server program which contains data values for many Single Loop Controllers, Programmable Logic

Controllers, or Distributed Control Systems , and wherein the setup wizard runs and sets up a de facto interface between the application program, and the server program.

7. (Currently amended) The process of claim 1, further comprising a process for creating the setup wizard comprising the steps of:
(a) the user's instructing the wizard builder to create a setup wizard,
(b) the wizard builder's displaying verbal questions for the user requesting details of connection to, and operating properties of, or both, a first Single Loop Controller, Programmable Logic Controller, or Distributed Control System , and subsequently, in sequence, of any other Single Loop Controller, Programmable Logic Controller, or Distributed Control System having different connection details or operating properties, and
(c) the wizard builder's storing answers in a setup wizard file which defines the setup wizard

8. (Currently amended) The process of claim 1, further comprising creating a setup wizard file, and further comprising a process for altering the setup wizard comprising the steps of:
(a) the user's instructing the wizard builder to alter the setup wizard,
(b) the wizard builder's rerunning the verbal questions asked when the setup wizard file was created,
(c) the wizard builder's setting default answers to the verbal questions from the setup wizard file,
(d) if the user alters a previous answer, the wizard builder's altering the setup wizard file,
(e) the wizard builder's asking the user by verbal questions for details of connection to, or operating properties of, or both, a first Single Loop Controller, Programmable Logic Controller, or Distributed Control System , and subsequently, in sequence, any other Single Loop Controller, Programmable Logic Controller, or Distributed Control System having different connections details or operating properties, and
(f) the wizard builder's storing any alternate answers in the setup wizard file.

9. (Currently amended) The process of claim 1, further comprising creating a setup wizard file, and further comprising a process for running a setup wizard comprising the steps of:
(a) the user's asking the setup wizard to run ,
(b) the setup wizard's reading the setup wizard file,
(c) the setup wizard's determining whether the answers to verbal questions are already in the setup wizard file or can be inferred from the answers in the setup wizard file, and
(d) if the answer in the preceding step is yes, stopping the process,
whereby the application program is left in a state of having connection details and properties of the Single Loop Controllers, Programmable Logic Controllers, or Distributed Control Systems .

10. (Currently amended) The process of claim 1, further comprising creating a setup wizard file, and further comprising a process for running a setup wizard comprising the steps of:

(a) the user's asking the setup wizard to run ,
(b) the setup wizard 's reading the setup wizard file,
(c) the setup wizard's determining whether the answers to all the verbal questions are already in the setup wizard file or can be inferred from the answers in the setup wizard file,
(d) if the answer to the preceding question is no, the setup wizard's asking the user for information that is unique to a new Single Loop Controller, Programmable Logic Controller, or Distributed Control System , and
(e) the setup wizard 's incorporating connection details and properties of a new Single Loop Controller, Programmable Logic Controller, or Distributed Control System , whereby the application program is left in a state of having connection details and properties of the Single Loop Controller, Programmable Logic Controller, or Distributed Control System .

11. (Previously presented) The process of claim 1, wherein the wizard builder computer program process is contained within the application software, and wherein a setup wizard file is held on a memory means within a computer.

12. (Original) The process of claim 1, wherein the computer program process wizard operates without the use of script files.

13. (Cancelled)

14. (Original) The process of claim 7, wherein the setup wizard file is adapted to be moved to another computer for use with the same or similar application program installed in the other computer.

15. (Original) The process of claim 8, wherein the setup wizard file is adapted to be moved to another computer for use with the same or similar application program installed in the other computer.

16. (Previously presented) The process of claim 3 wherein the computer running the application program comprises a personal computer, containing a communications card and server software that drives and communicates with the communications card, and wherein the personal computer is running an operating system software means.
17. (Previously presented) The process of claim 14, wherein the setup wizard file is adapted be moved to another computer by a process of using a transfer means selected from the group consisting of: a floppy disk, serial link, network connection, or email.
18. (Original) An article of manufacture comprising a computer readable memory means on which is recorded the computer program process of claim 3.
19. (Original) The process of transferring by a means for transferring computer programs in real time, the computer program process of claim 3.
20. (Original) An article of manufacture comprising a computer means programmed with the computer program process of claim 3.

21. (Cancelled)

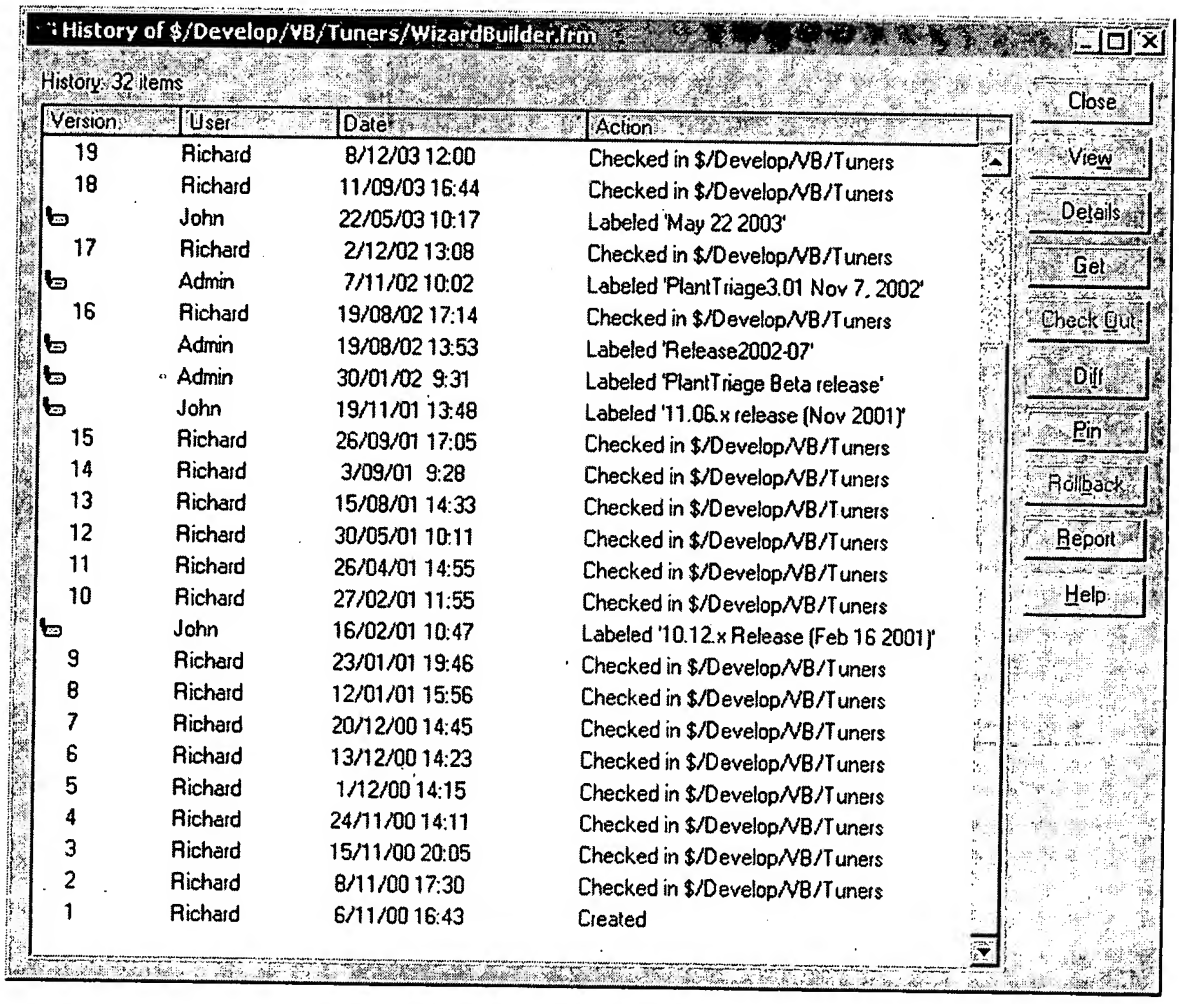
 EXHIBIT B

Evidence Wizard Builder was invented prior to 24 November 2000.

At various places in the figures below, references are made that prove that all the claims of the wizard builder invention existed prior to 24 November 2000.

Claim 1: Figures 4 to 30 taken together.
Claim 2: Figure 4.
Claim 3: Figure 3.
Claim 4: Figure 3.
Claim 5: Figures 4, 5.
Claim 6: Figures 33 to 41 taken together.
Claim 7: Figure 32.
Claim 8: Figure 32
Claim 9: Figure 41.
Claim 10: Figure 35.
Claim 11: Figures 4 to 30 taken together.
Claim 12: Figures 4 to 30 taken together. The user does not have to manually create script files.
Claim 14: Figure 32.
Claim 15: Figure 32.
Claim 16: Figure 3.
Claim 17: Figure 32.
Claim 18: Figure 3.
Claim 19: Figure 3.
Claim 20: Figure 3.

Figure 1. Date of initial creation of the wizard builder invention.



Version	User	Date	Action
19	Richard	8/12/03 12:00	Checked in $/Develop/VB/Tuners
18	Richard	11/09/03 16:44	Checked in $/Develop/VB/Tuners
	John	22/05/03 10:17	Labeled 'May 22 2003'
17	Richard	2/12/02 13:08	Checked in $/Develop/VB/Tuners
	Admin	7/11/02 10:02	Labeled 'PlantTriage3.01 Nov 7, 2002'
16	Richard	19/08/02 17:14	Checked in $/Develop/VB/Tuners
	Admin	19/08/02 13:53	Labeled 'Release2002-07'
	Admin	30/01/02 9:31	Labeled 'PlantTriage Beta release'
	John	19/11/01 13:48	Labeled '11.06.x release (Nov 2001)'
15	Richard	26/09/01 17:05	Checked in $/Develop/VB/Tuners
14	Richard	3/09/01 9:28	Checked in $/Develop/VB/Tuners
13	Richard	15/08/01 14:33	Checked in $/Develop/VB/Tuners
12	Richard	30/05/01 10:11	Checked in $/Develop/VB/Tuners
11	Richard	26/04/01 14:55	Checked in $/Develop/VB/Tuners
10	Richard	27/02/01 11:55	Checked in $/Develop/VB/Tuners
	John	16/02/01 10:47	Labeled '10.12.x Release (Feb 16 2001)'
9	Richard	23/01/01 19:46	Checked in $/Develop/VB/Tuners
8	Richard	12/01/01 15:56	Checked in $/Develop/VB/Tuners
7	Richard	20/12/00 14:45	Checked in $/Develop/VB/Tuners
6	Richard	13/12/00 14:23	Checked in $/Develop/VB/Tuners
5	Richard	1/12/00 14:15	Checked in $/Develop/VB/Tuners
4	Richard	24/11/00 14:11	Checked in $/Develop/VB/Tuners
3	Richard	15/11/00 20:05	Checked in $/Develop/VB/Tuners
2	Richard	8/11/00 17:30	Checked in $/Develop/VB/Tuners
1	Richard	6/11/00 16:43	Created

Figure 1 is a screen copy of a Microsoft utility named SourceSafe that is used by ExperTune Inc. SourceSafe is designed for software development and is widely used within the software development industry. It keeps secure all versions of all source files. Figure 1 shows that the file WizardBuilder.frm was first created 6 November 2000. Note that the dates are in UK format (day/month/year). WizardBuilder.frm is the source code for the wizard builder invention. Compiling this source code creates an executable file which can run and respond to a human user. Figure 1 also shows that the wizard builder invention was continually altered and refined. It was first released to customers 16 February 2001. A useful feature of SourceSafe is that any version of any file can be recovered.

Figure 2. Date of initial creation of help screen for wizard building invention.

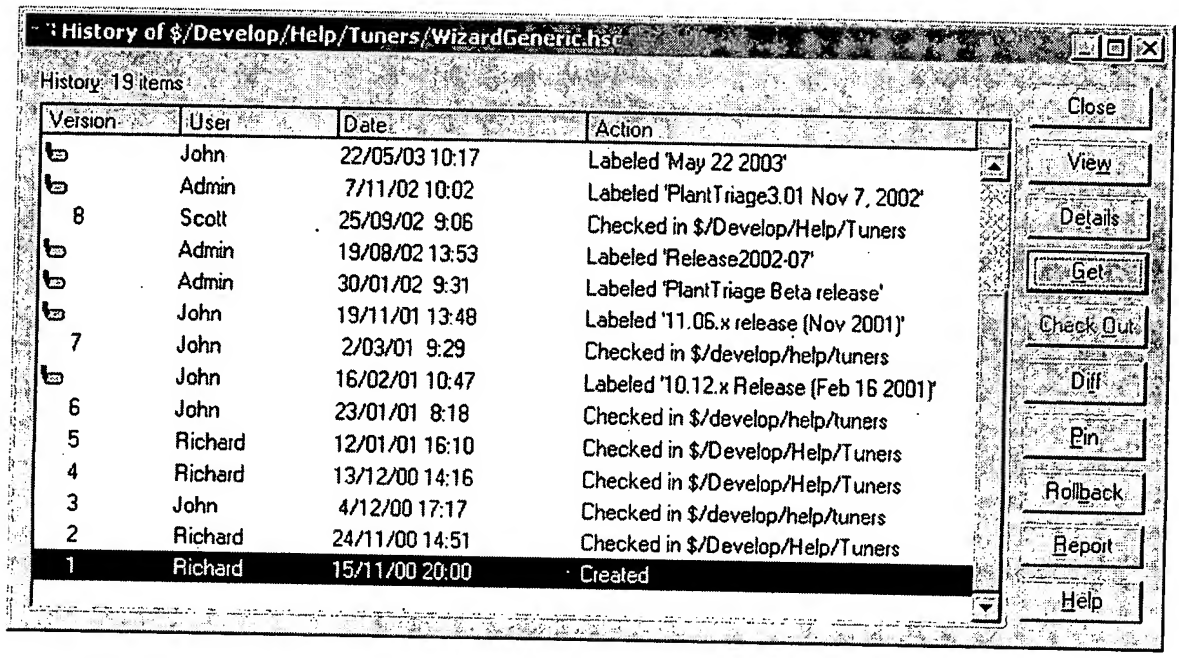


Figure 2 is another SourceSafe screen in use by ExperTune Inc. This screen shows the history of the WizardGeneric.hsc file. This file is the source code for the user help screens for the wizard builder invention. Note that this file was first created 15 November 2000.

Figure 3. User Help screen for wizard building invention.

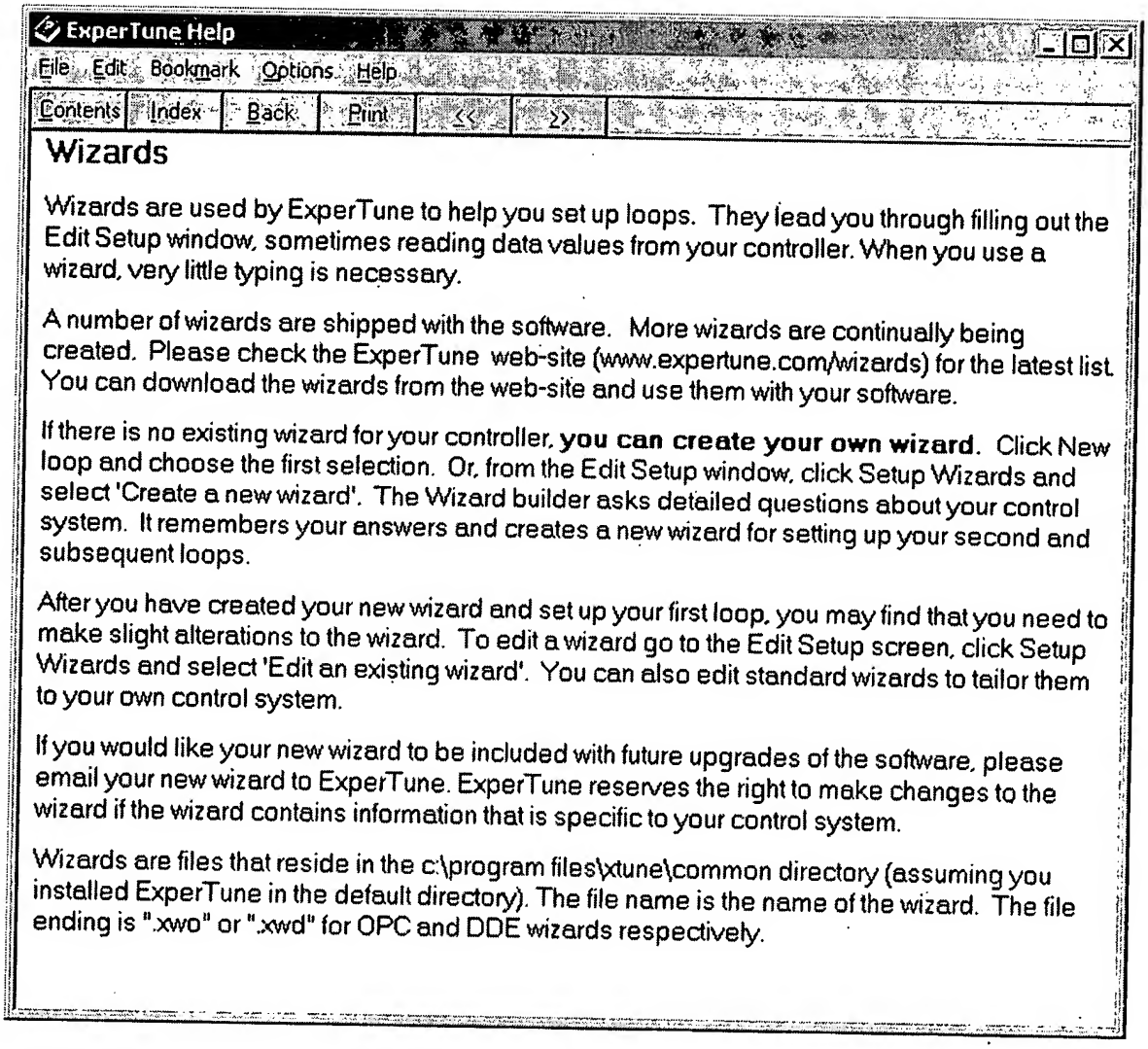


Figure 3 is a user help screen for one embodiment of the wizard builder invention. The embodiment is for setting up a DDE (Dynamic Data Exchange) de-facto interface whereby application software is set up to communicate with industrial control and monitoring equipment (loop controllers).

This help screen has been derived from the actual WizardGeneric.hsc source file that was created 15 November 2000. The version dated 15 November 2000 was recovered from the ExperTune Inc. SourceSafe system and re-compiled. Note the last two sentences of the third paragraph which have been proved to have been written prior to 15 November 2000: "The Wizard builder asks detailed questions about your (A) control system. It remembers your answers and (B) creates a new wizard for setting up your second and subsequent loops". These two sentences summarize the wizard builder invention in terms meaningful to a human user of the invention.

Compare this description with claim 1:
"A computer program process, called a wizard builder, executable on a computer, for adapting an application program to function with a (1)Single Loop Controller, Programmable Logic Controller, or Distributed Control System~~PID loop controllers~~, wherein the wizard builder (2)constructs a setup wizard which sets up a de facto interface between a Single Loop Controller, Programmable

Logic Controller, or Distributed Control System~~PID loop controllers~~ and the application program, wherein (3) the setup wizard is constructed by means of asking a human user of the application program for answers to simple verbal questions, in English or other language convenient to a human user, about the model and manufacturer of the Single Loop Controller, Programmable Logic Controller, or Distributed Control System~~PID loop controllers~~, and wherein the wizard builder does not require a human user to have any knowledge of writing or using computer programs."

The user help screen uses the term "(A)control system", instead of the more lengthy "(1) Single Loop Controller, Programmable Logic Controller, or Distributed Control System~~PID loop controllers~~". The user help screen then states "(B) creates a new wizard for setting up your second and subsequent loops". This corresponds to the claim 1 statement, "(2) constructs a setup wizard which sets up a de facto interface between a Single Loop Controller, Programmable Logic Controller, or Distributed Control System~~PID loop controllers~~ and the application program".

The final two paragraphs of the help screen are concerned with moving a wizard to another computer by moving a single file, "If you would like your new wizard.... ...The file ending is ".xwo" or ".xwd" for OPC and DDE wizards respectively." This proves that claims 3, 4, 16, 18, 19 and 20 of the wizard builder invention existed prior to 15 November 2000.

To further show that the wizard builder invention existed in November 2000, we have taken the source file, WizardBuilder.frm, that was current 24 November 2000. This is version 4 of the source file. See figure 1. The source file from this date was recovered from SourceSafe, compiled and run. Figures 4 to 32 below clearly show "(3) the setup wizard is constructed by means of asking a human user of the application program for answers to simple verbal questions, in English or other language convenient to a human user, about the model and manufacturer of the Single Loop Controller, Programmable Logic Controller, or Distributed Control System~~PID loop controllers~~, and wherein the wizard builder does not require a human user to have any knowledge of writing or using computer programs". The following screen shots have therefore been proved to exist prior to 24 November 2000.

Figure 4. User chooses to to create a new wizard.

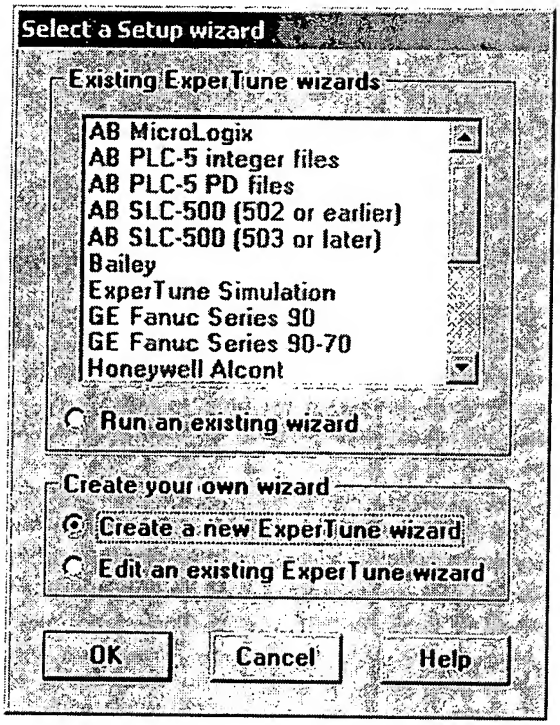


Figure 4 is the first screen shown to the user when he wishes to use the wizard builder invention. He has the choice of using the wizard builder invention to create a new setup wizard, to run a setup wizard that has already been created, or to edit an existing setup wizard. In this case he chooses to create a new setup wizard. Note that another option is to edit an existing wizard. This proves that claim 2 of the wizard builder invention existed prior to 24 November 2000. If, in fact "Edit an existing ExperTune wizard", had been selected followed by the OK button, the same screens as follow, figures 5 to 32, also appear in the same order but with entries preset to the answers that were entered when the wizard was created. Ths proves that claim 5 of the wizard builder invention existed prior to 24 November 2000.

Figure 5. User enters a name for the new setup wizard.

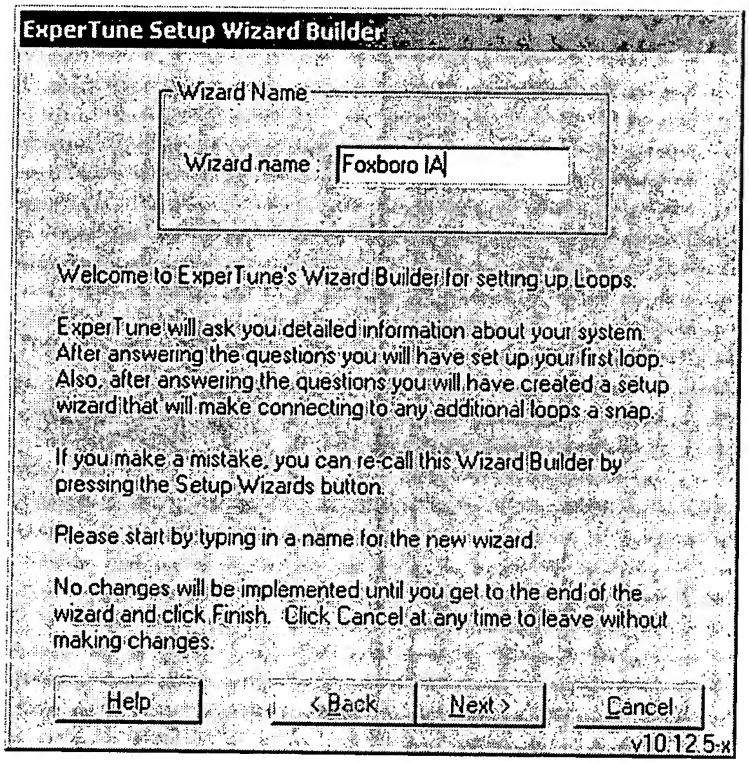


Figure 5 is the screen that first appears when the user has elected to use the wizard builder invention to create a new setup wizard. He is asked in plain English for the name of the new wizard. In this case he chooses the name Foxboro IA. Note the text "If you make a mistake, you can re-call this Wizard Builer by pressing the Setup Wizards button". In other words the user can alter an existing wizard by simply typing over an existing answer. This proves that claim 5 of the wizard builder invention existed prior to 24 November 2000.

Figure 6. Wizard Builder – DDE Application Name

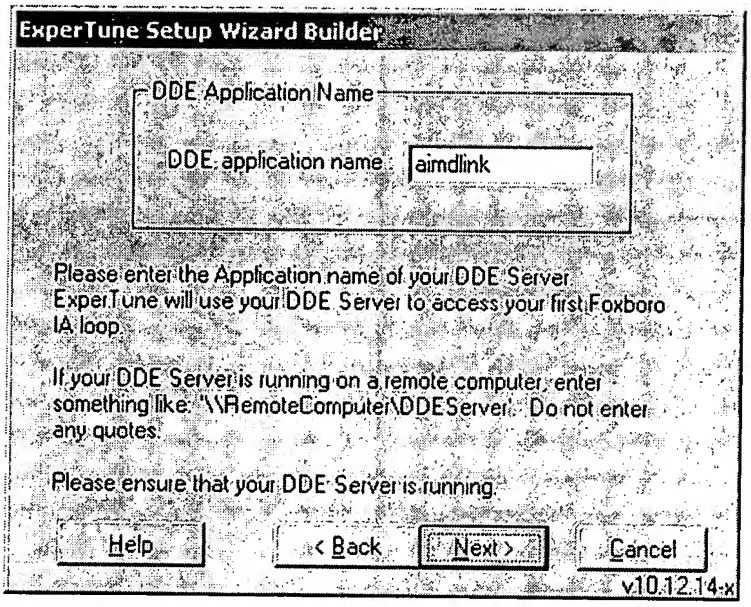


Figure 6 is where the wizard builder invention asks the user for the name of a DDE server. DDE is a well known to process and instrument engineers as a "(4) de facto interface between a Single Loop Controller, Programmable Logic Controller, or Distributed Control System~~PID loop controllers~~ and the application program". In fact DDE is defined and supported by Microsoft. In this instance the user has chosen the name "aimdlink". The user does not need knowledge of writing or using computer programs to come up with this name. The DDE server user documentation will clearly show the DDE Application name which the DDE server uses.

Figure 7. Wizard Builder – Fixed DDE Application?

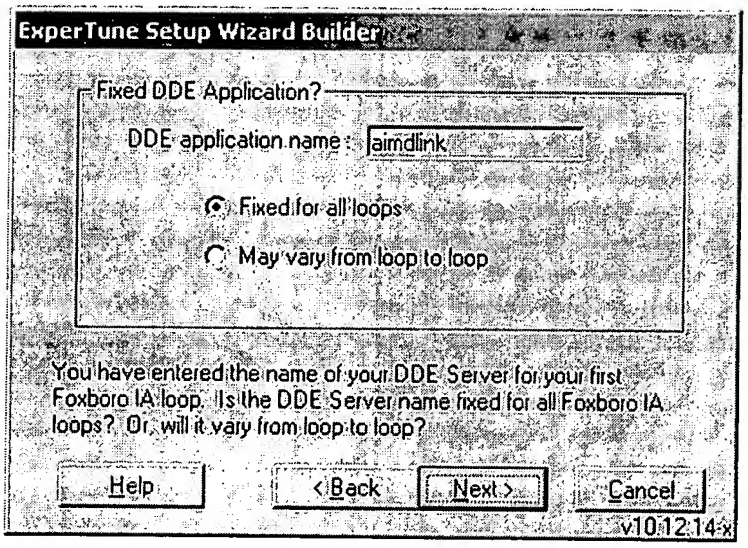


Figure 7 is where the wizard builder invention asks the user for further information about the DDE interface. The user has the choice of having the resultant setup wizard ask for a new DDE Application Name or to remember the DDE Application name everytime the resultant setup wizard runs. In this instance the user indicates that the setup wizard should not ask for a new DDE application name but should always use the DDE Application named "aimdlink" every time it runs.

Figure 8. Wizard Builder – DDE Topic name

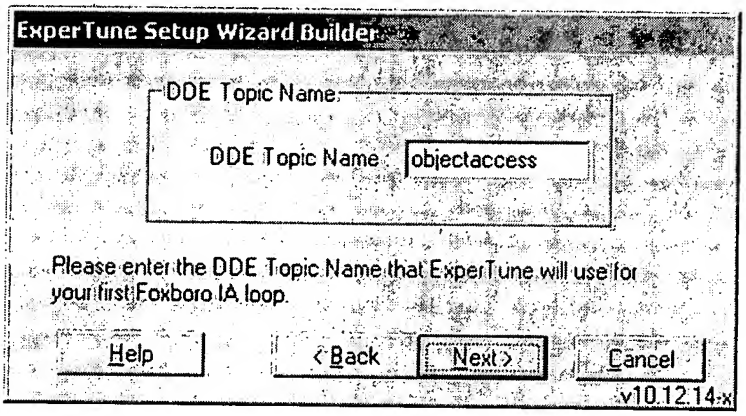


Figure 8 is where wizard builder invention asks the user for the DDE topic name. The DDE Topic name is part of the DDE de facto interface. It further refines the DDE Application name. It is a name that needs to be recognised by the DDE server. In this instance the user has chosen the name "objectaccess". The user does not need knowledge of writing or using computer programs to come up with this name. The DDE server user documentation will clearly show the DDE Topic names which the DDE server recognises.

Figure 9. Wizard Builder Invention – Fixed DDE Topic Name?

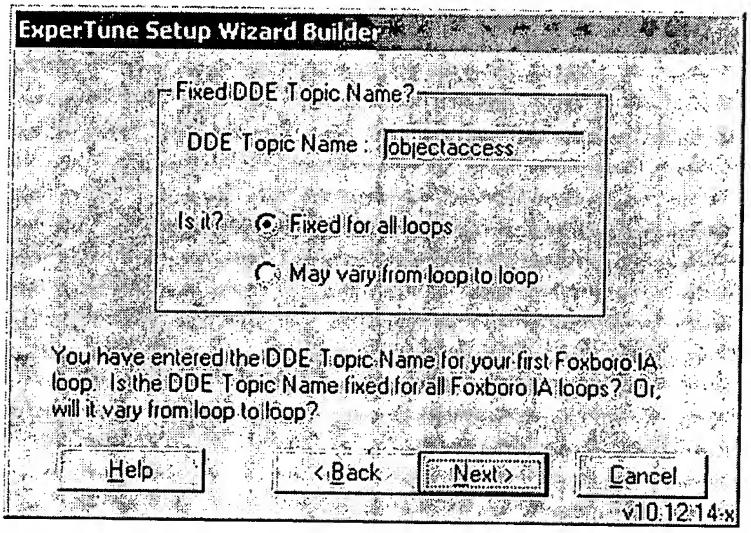


Figure 9 is where the wizard builder invention asks the user for further information about the DDE interface. The user has the choice of having the resultant setup wizard ask for a new DDE Topic Name or to remember the DDE Topic name everytime the resultant setup wizard runs. In this instance the user indicates that the setup wizard should not ask for a new DDE Topic name but should always use the DDE Topic named "objectaccess" every time it runs.

Figure 10. Wizard Builder Invention – definition of loop process variable

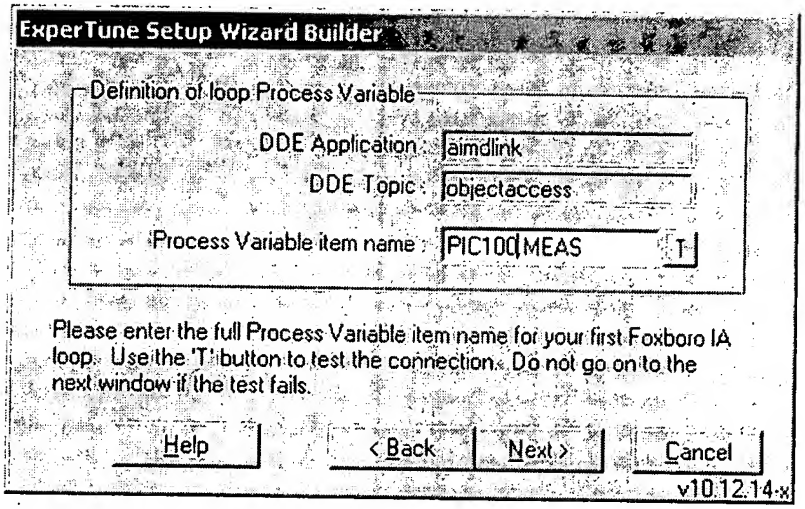


Figure 10 is where wizard builder invention asks for a DDE item name for the loop controller's process variable. In this instance the user has entered the item name: PIC100.MEAS. The user does not need knowledge of writing or using computer programs to come up with this name. The DDE server user documentation will clearly show the DDE item names which the DDE server recognises.

Figure 11. Wizard Builder Invention – Prefix prompt

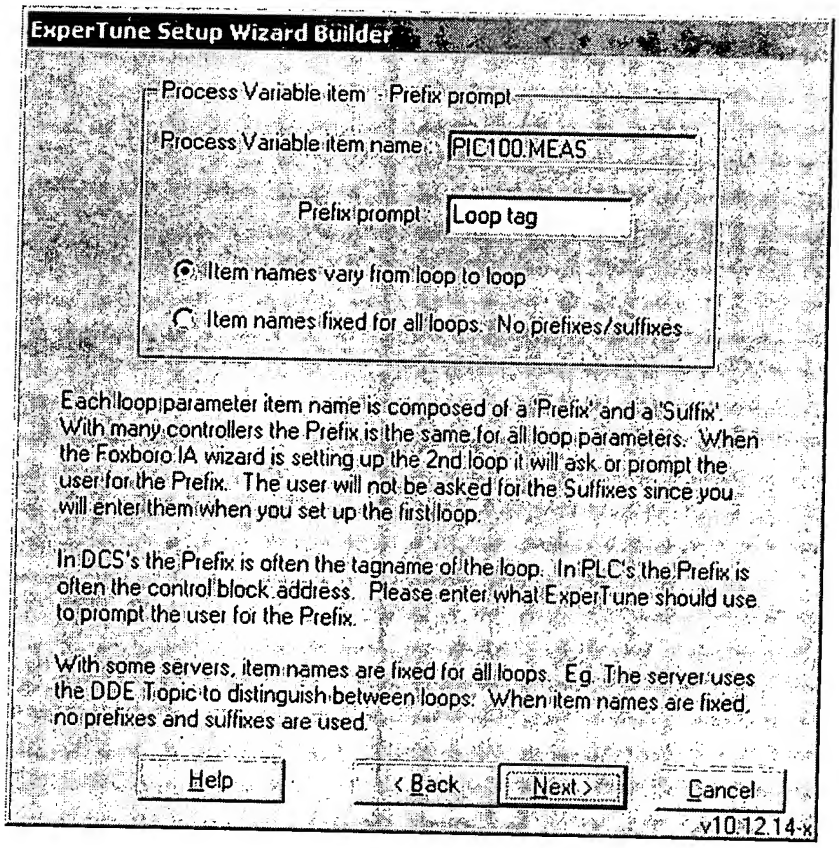


Figure 11 is where the wizard builder invention asks the user for a prefix prompt. The prefix prompt will eventually be used by the setup wizard that is created by the wizard builder invention.

Figure 12. Wizard Builder Invention – Parameter suffixes

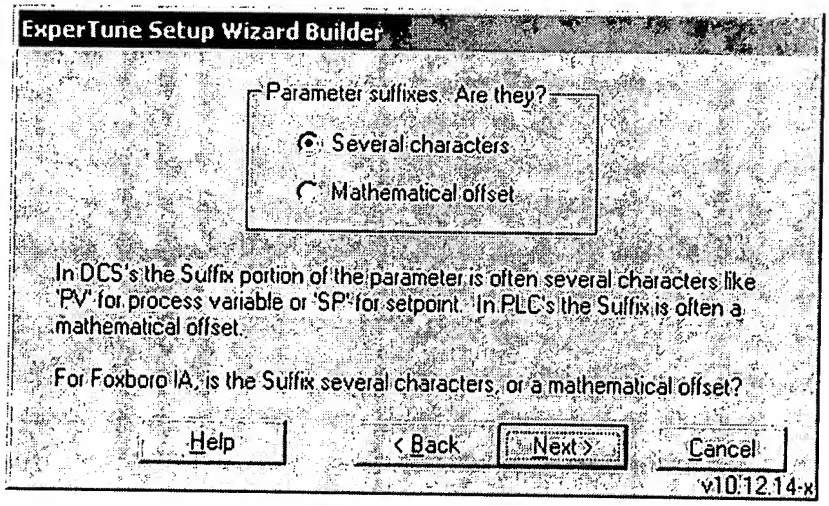


Figure 12 is where the wizard builder invention asks the user for the type of suffixes used. The user does not need knowledge of writing or using computer programs to answer this question. The DDE server user documentation will clearly show the DDE item name structure and hence the type of suffix which the setup wizard, that is being created by the wizard builder invention, should use.

Figure 13. Wizard Builder Invention – Prefix/suffix split

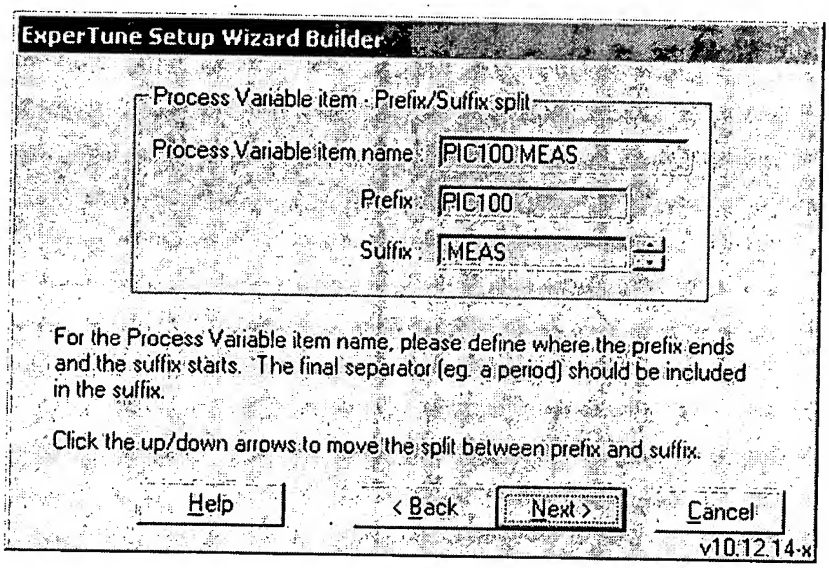


Figure 13 is where the wizard builder invention asks the user where in the process variable DDE item name the prefix/suffix split should occur. This information will be used by the setup wizard, that is being created by the wizard builder invention. When the setup wizard runs it will ask the user for a new prefix value and automatically add the suffix to create a new process variable DDE item name for another loop controller. The user does not need knowledge of writing or using computer programs to answer this question. The DDE server user documentation will clearly show the DDE item name structure and hence the suffixes that are common to all loop controllers.

Figure 14. Wizard Builder Invention – Suffix for Controller Output DDE item names.

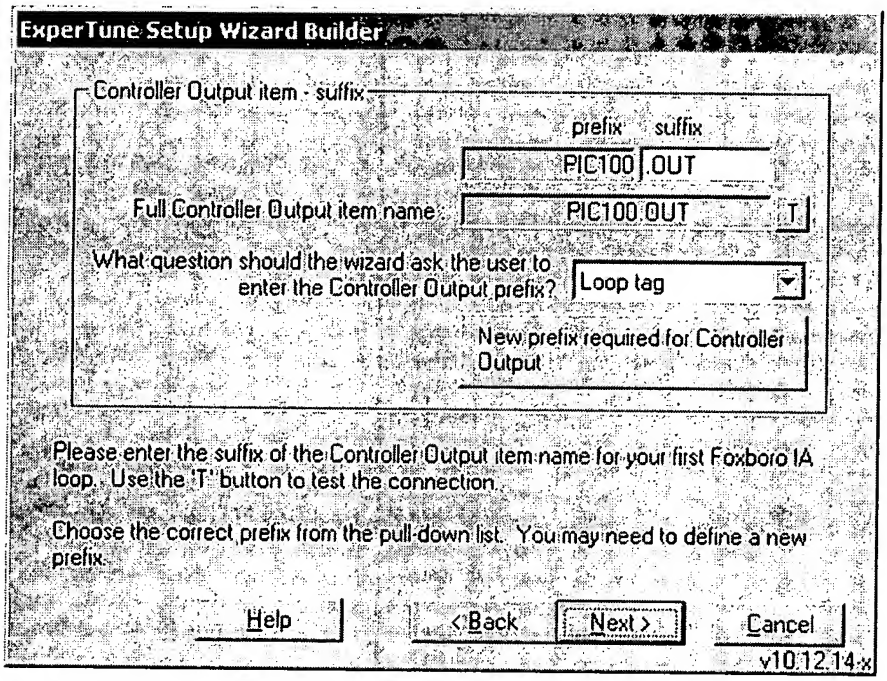


Figure 15. Wizard Builder Invention – Suffix for Setpoint DDE item names.

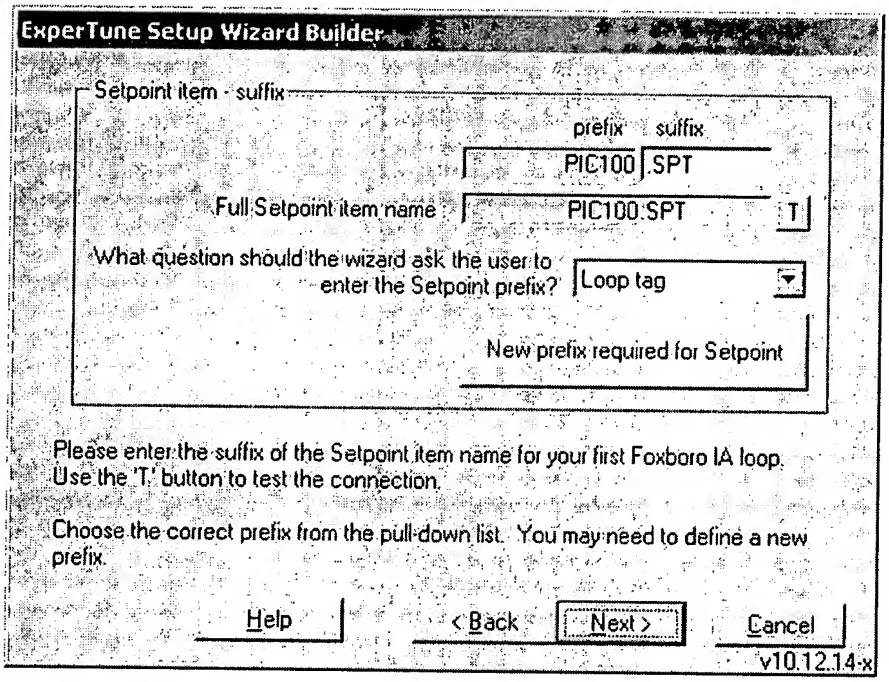


Figure 16. Wizard Builder Invention – Suffix for P term DDE item names.

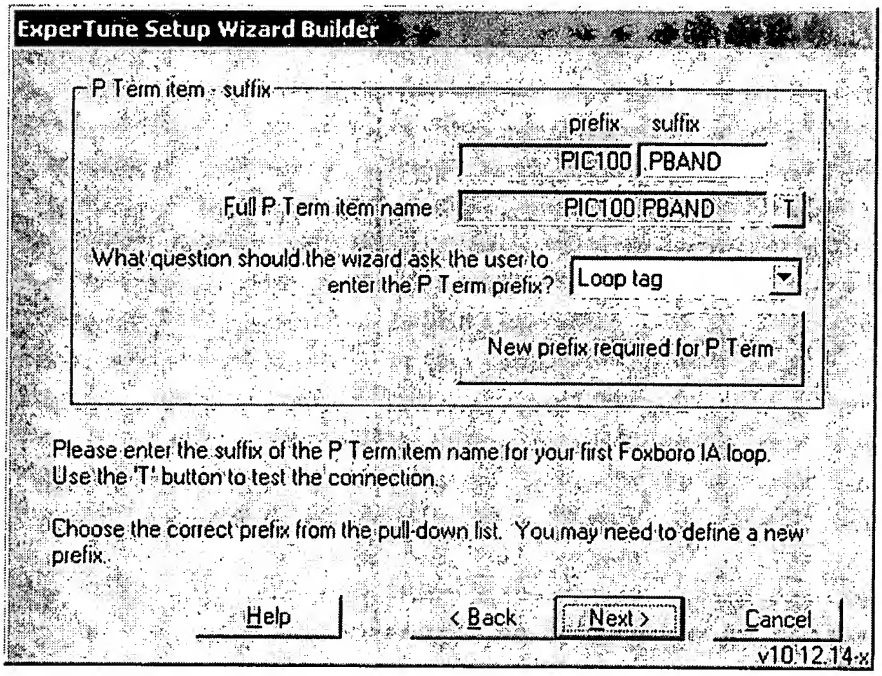


Figure 17. Wizard Builder Invention – Suffix for I term DDE item names.

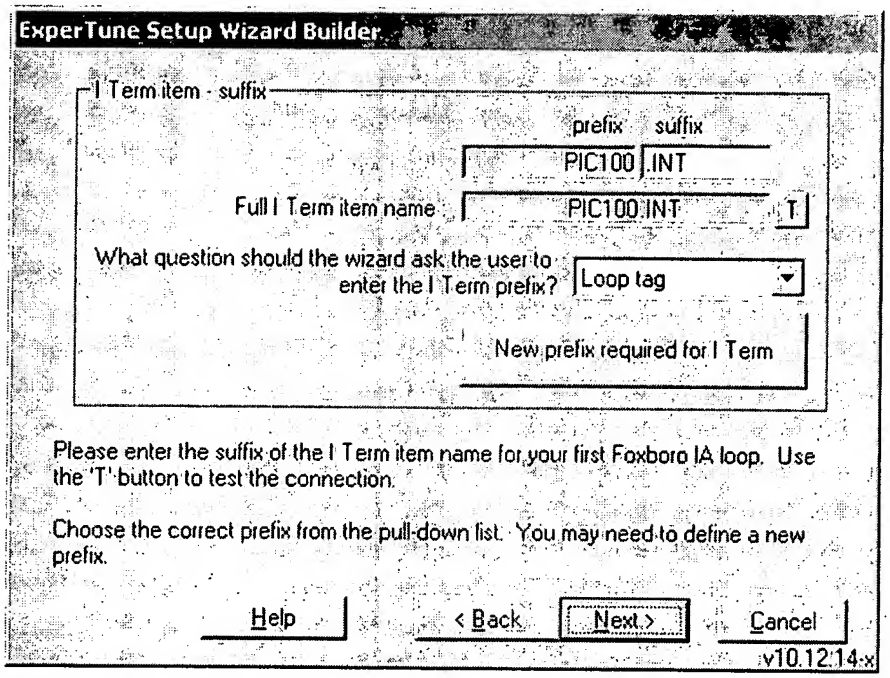


Figure 18. Wizard Builder Invention – Suffix for D term DDE item names.

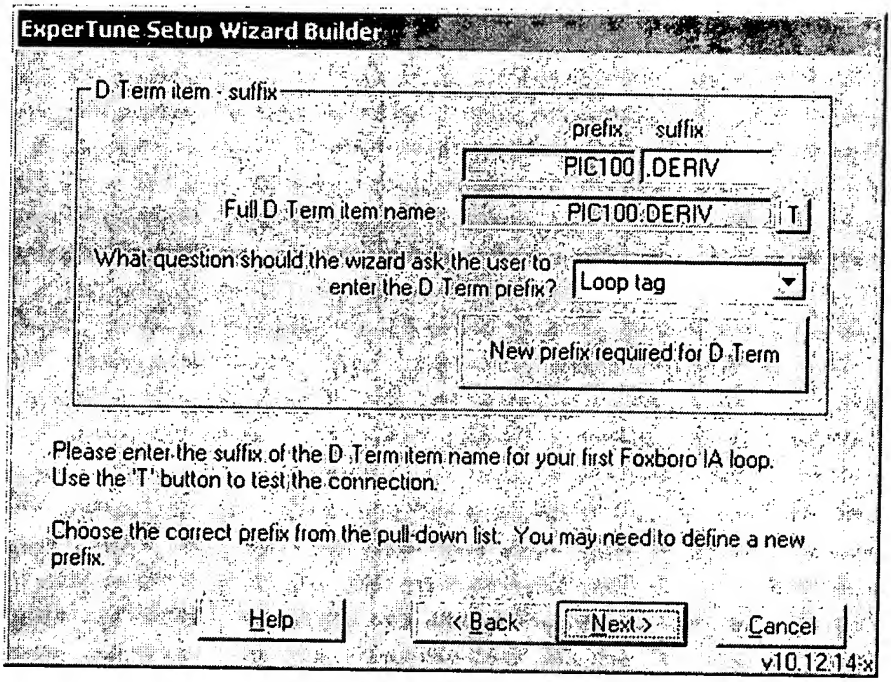
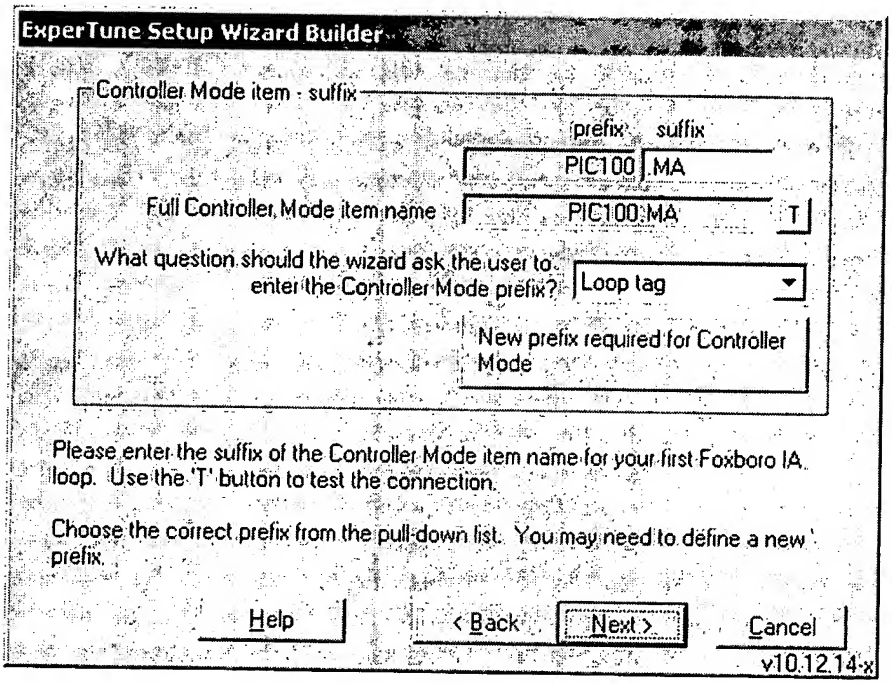


Figure 19. Wizard Builder Invention – Suffix for Controller mode DDE item names.



Figures 14 to 19 is where the wizard builder invention asks the user for the suffixes for other loop controller DDE item names. This information will be used by the setup wizard, that is being created by the wizard builder invention. When the setup wizard runs it will ask the user for a new prefix value and automatically add the different suffixes for the different loop controller parameters. The user does not need knowledge of writing or using computer programs to answer

this question. The DDE server user documentation will clearly show the DDE item name structure and hence the suffixes that are common to all loop controllers.

Figure 20. Wizard Builder Invention – Auto and Manual modes.

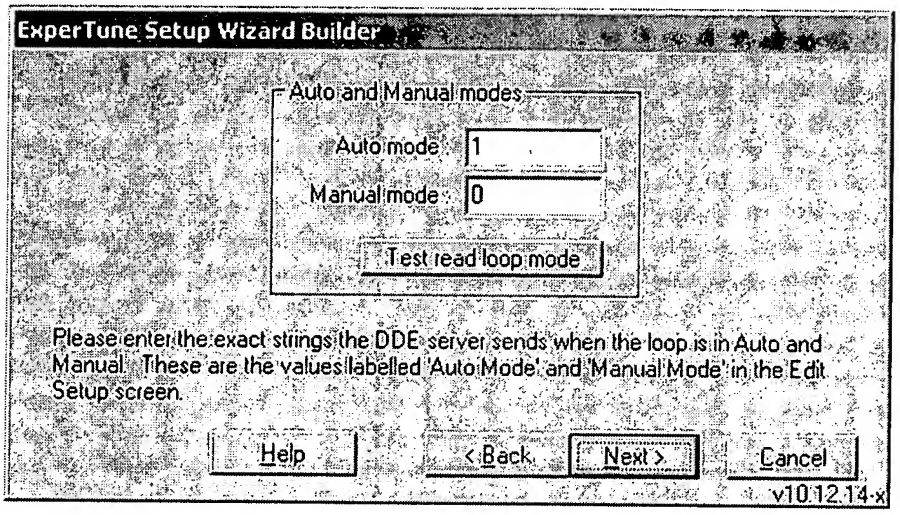


Figure 20 is where the wizard builder invention asks the user for the exact strings the DDE server sends for different controller loop modes. In this case, the user has entered "1" for auto mode and "0" for manual mode. This information will be used by the setup wizard, that is being created by the wizard builder invention. When the setup wizard runs it will automatically set up these exact strings. The user does not need knowledge of writing or using computer programs to answer this question. He can simply use the "Test read loop mode" button to manually examine the strings being sent by the DDE server.

Figure 21. Wizard Builder Invention – Unique write locations

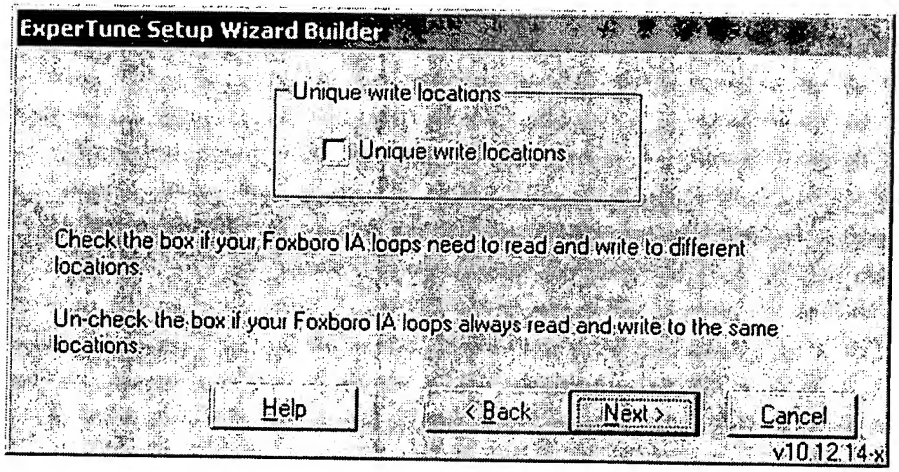


Figure 21 is where the wizard builder invention asks the user if his loop controller uses two different DDE item names: one for reading and one for writing. In this instance the user has indicated that the loop controller uses the same address for both reading and writing. The user does not need knowledge of writing or using computer programs to answer this question. The DDE server user documentation will clearly show the DDE item names to be used for read and write access to the loop controller.

Figure 22. Wizard Builder Invention – PV and CO scaling

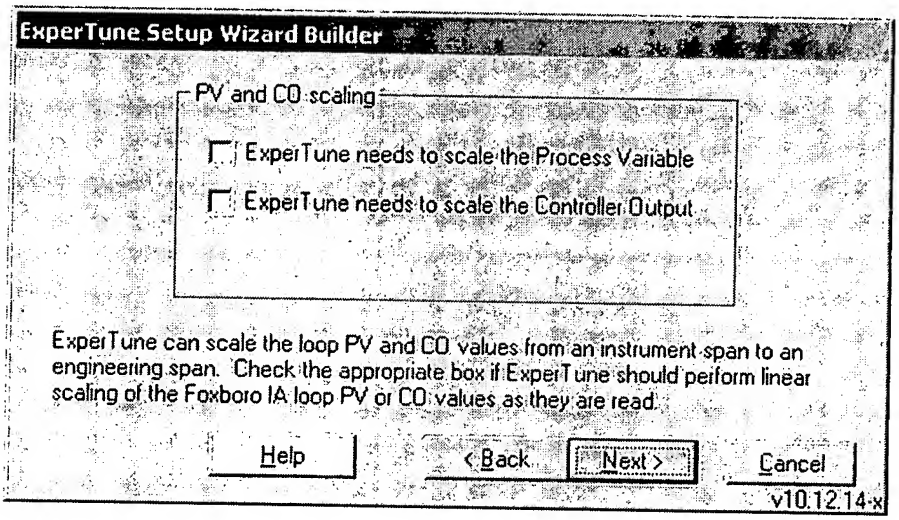


Figure 22 is where the wizard builder invention asks the user if the Process Variable or Controller Output values being input from the loop controller need to be scaled. In this instance neither values need scaling. The user does not need knowledge of writing or using computer programs to answer this question. He will have already tested the process variable and controller output values in figures 10 and 14 and determined if the values are being shown correctly. Making different choices in figure 22 causes the wizard builder invention to ask different subsequent questions.

Figure 23. Wizard Builder Invention – PV engineering span

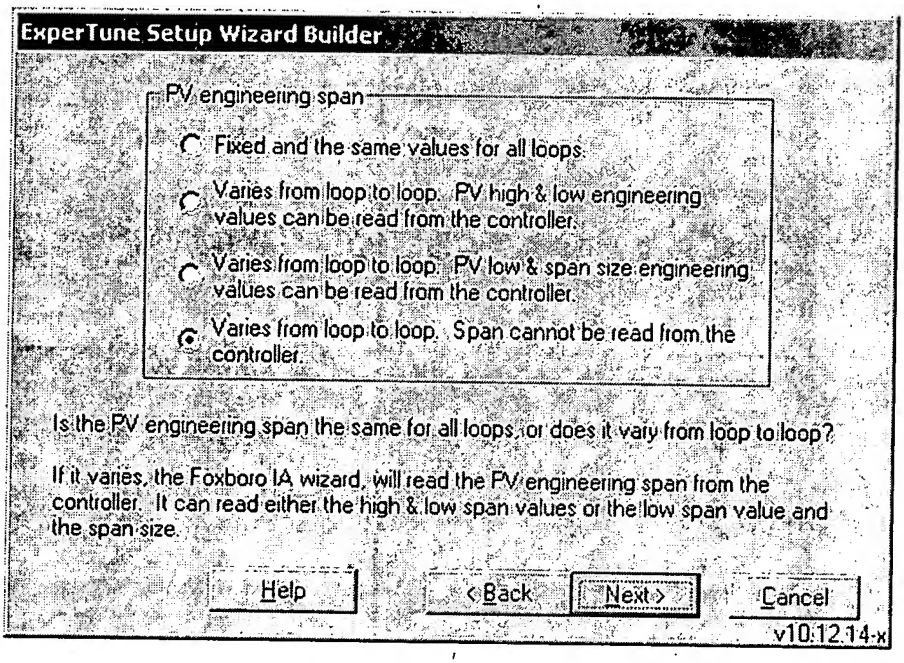


Figure 23 is where the wizard builder invention asks the user how the Process Variable engineering span should be set up. It can be either fixed, read from the loop controller or manually entered. Whatever the answer, the resultant set up wizard, being created by the wizard builder invention will, act accordingly. In this instance the Process Variable span needs to be entered manually. Therefore the resultant setup wizard will ask the user for the span values every time it runs. The user does not need knowledge of writing or using computer programs to answer this question. The DDE server user documentation will clearly show the DDE item names available for each loop controller and in this instance the span values are not available from the DDE server.

Figure 24. Wizard Builder Invention – PV engineering span values

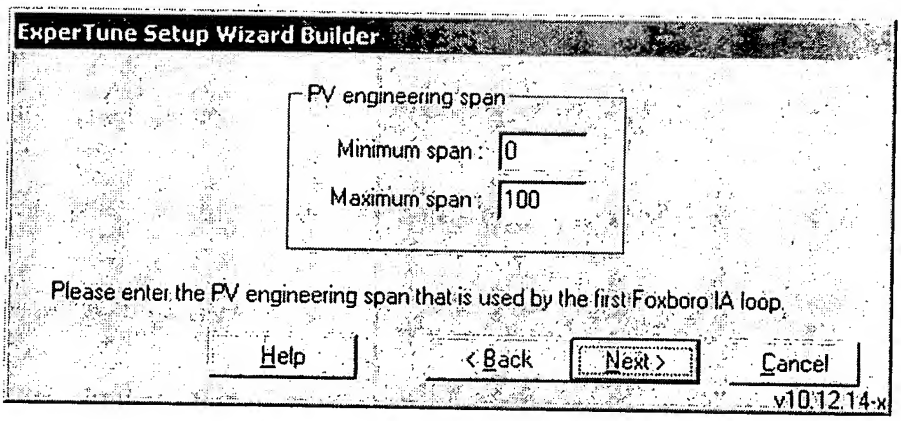


Figure 24 is where the wizard builder invention asks the user for the Process Variable engineering span values. These will be the default values presented when the Setup wizard, being created by the wizard builder invention, runs.

Figure 25. Wizard Builder Invention – CO engineering span

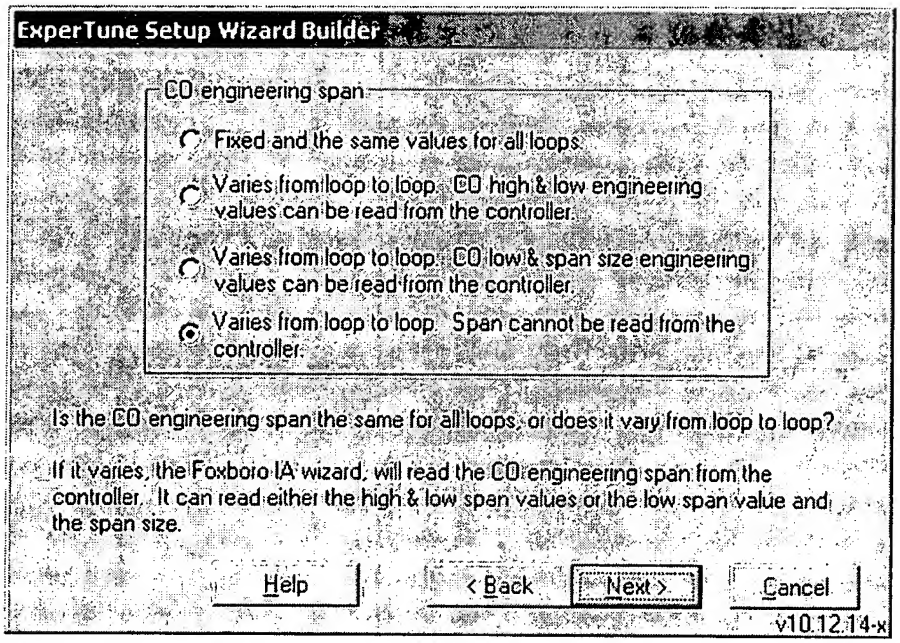
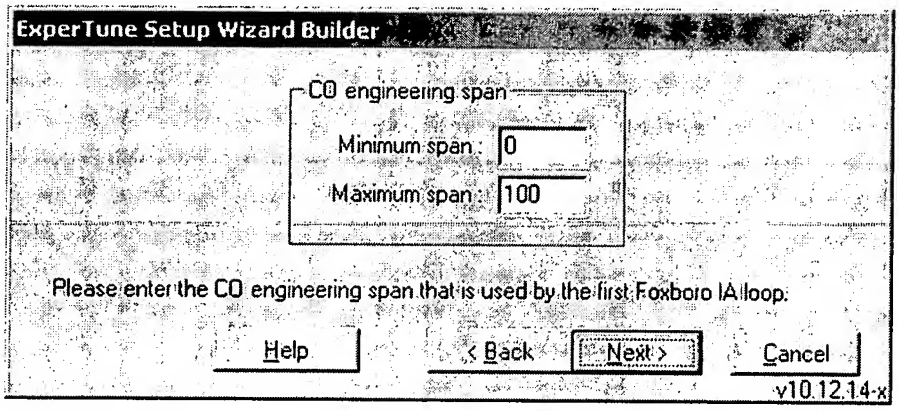


Figure 26. Wizard Builder Invention – CO engineering span values



Figures 25 and 26 are equivalent to figures 23 and 24 except the wizard builder invention is asking, in plain English, for the Controller Output span values of the loop controller instead of the Process Variable span values. The user does not need knowledge of writing or using computer programs to answer these questions. The engineering span values will be readily available from within his loop controller system.

Figure 27. Wizard Builder Invention – How to read the Controller Type

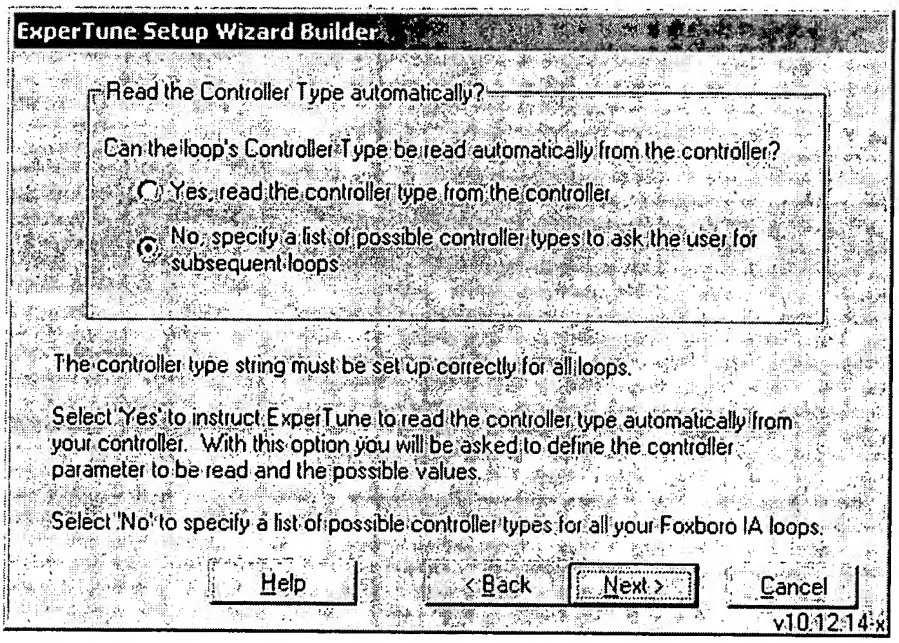


Figure 27 is where the wizard builder invention is asking, in plain English, if the resultant setup wizard, being created by the wizard builder invention, can automatically read the controller type value from the loop controller. In this instance the user has answered No. Subsequently, the wizard builder invention then allows the user to select which controller types could be valid for subsequent loop controllers. The user does not need knowledge of writing or using computer programs to answer this question. The possible controller types will be available from the loop controller documentation.

Figure 28. Wizard Builder Invention – Controller Type options

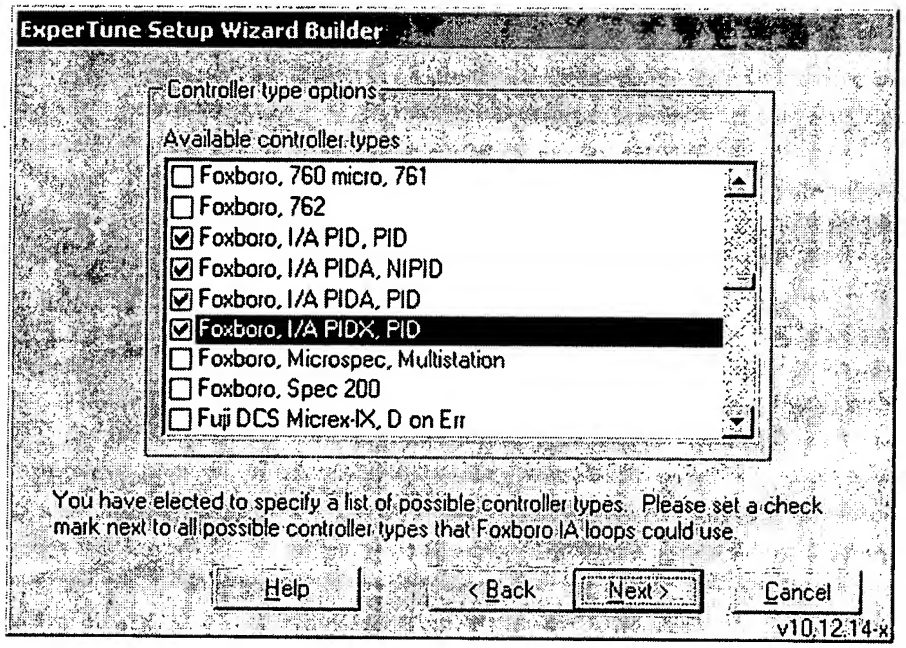


Figure 28 is where the wizard builder invention is asking the user to select the possible controller types that could be valid for the loop controller. When the resultant setup wizard, being created by the wizard builder invention, runs, it will ask the user to select from this pre-defined sub-list of controller types. The user does not need knowledge of writing or using computer programs to answer this question. The possible controller types will be available from the the loop controller documentation.

Figure 29. Wizard Builder Invention – Controller Type currently in use

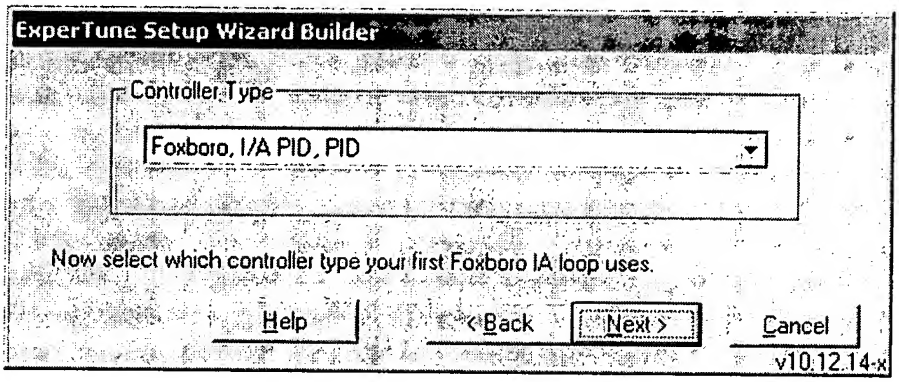


Figure 29 is where the wizard builder invention is asking, in plain English, the user to select the actual controller type in use by the current loop controller. This will be the default Controller Type presented to the user when the Setup wizard, being created by the wizard builder invention, runs.

Figure 30. Wizard Builder Invention – How to read the Process Direction

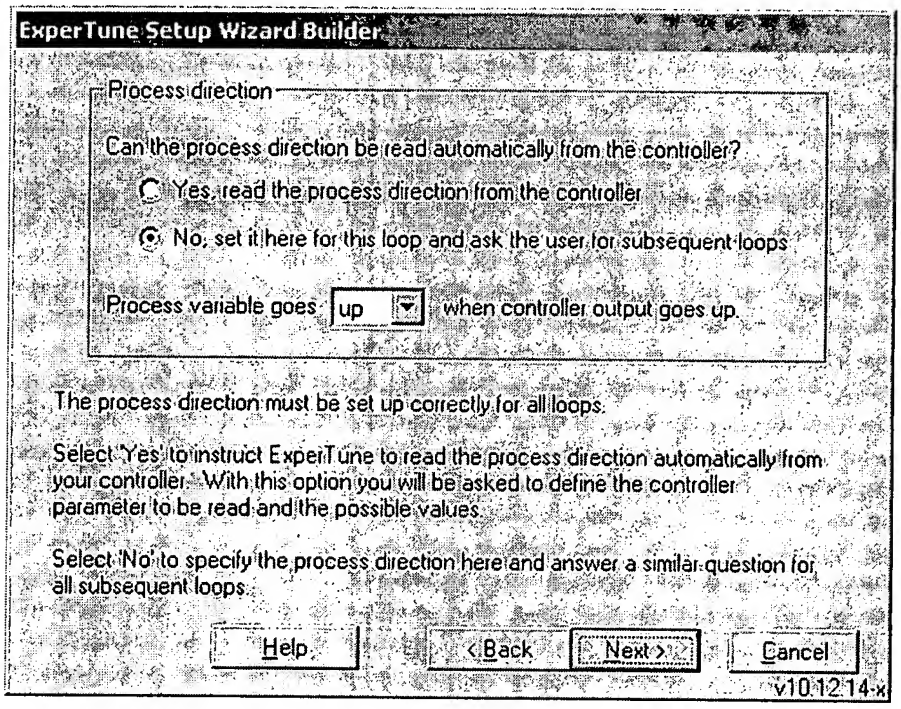


Figure 30 is where the wizard builder invention is asking, in plain English, if the resultant setup wizard, being created by the wizard builder invention, can automatically read the Process Direction value from the loop controller. In this instance the user has answered No. After the user answers No, the wizard builder invention also asks the user for the Process Direction used by the current loop controller. In this instance the user has answered "up". The user does not need knowledge of writing or using computer programs to answer this question. The Process Direction is dependent on how his process plant has been designed and built. When the resultant setup wizard, being created by the wizard builder invention, runs, it will not read the process direction from the loop controller automatically, but will ask the user to select the Process Direction. The setup wizard will default the Process Direction to "up".

Figure 31. Wizard Builder Invention – Sample Interval

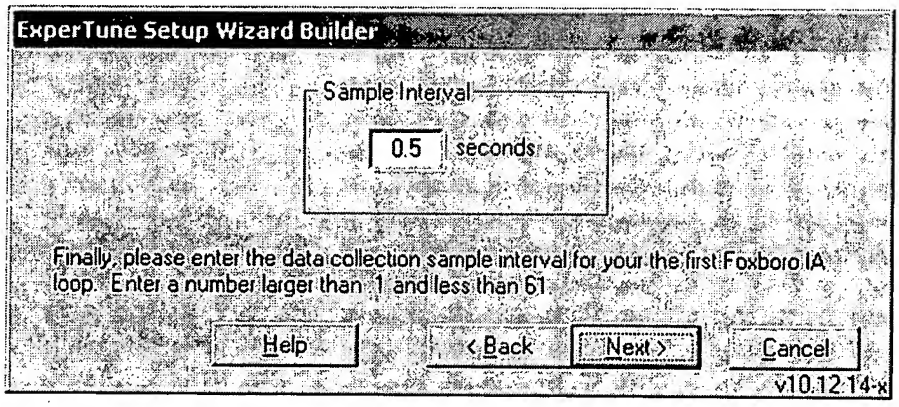


Figure 31 is where the wizard builder invention is asking, in plain English, the sample interval to be used. The user does not need knowledge of writing or using computer programs to answer this question. He does, however, need detailed knowledge of his process plant being controlled. When the resultant setup wizard, being created by the wizard builder invention, runs, it will, in this instance use "0.5" as the default sample interval.

Figure 32. Wizard Builder Invention – Summary window

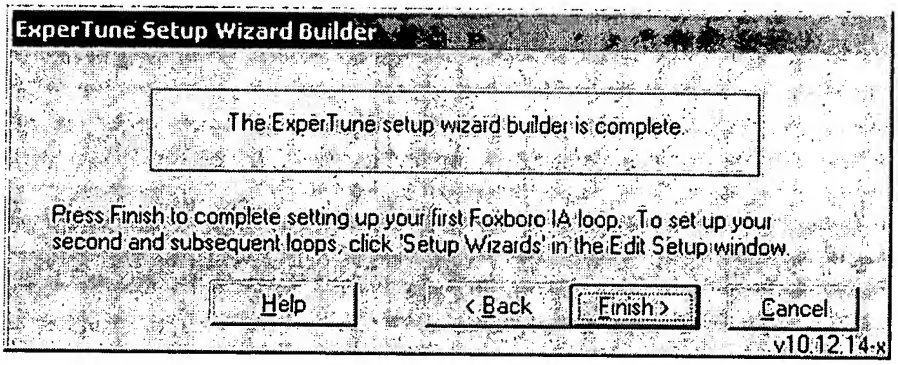


Figure 32 is the final summary window produced by the wizard builder invention. When the user clicks "Finish", the wizard builder invention will create a new setup wizard which can be subsequently run by the same user. In this instance the new setup wizard will be named "Foxboro IA". Figures 4 to 32 show the steps of creating a wizard. If these steps are taken together with the help screen, figure 3, where the wizard is described as being contained in a single file that defines the wizard and this file can be distributed with a software upgrade, then this proves that claims 7, 14 and 17 of the wizard builder invention existed prior to 24 November 2000. Furthermore as the user could have selected in figure 4 to edit an existing wizard, and the screens from figure 5 to figure 32 also appear with the user's previous answers. This, taken with the help file, figure 3, prove that claims 8 and 15 of the wizard builder invention existed prior to 24 November 2000.

Figure 33. User chooses to run a newly created wizard

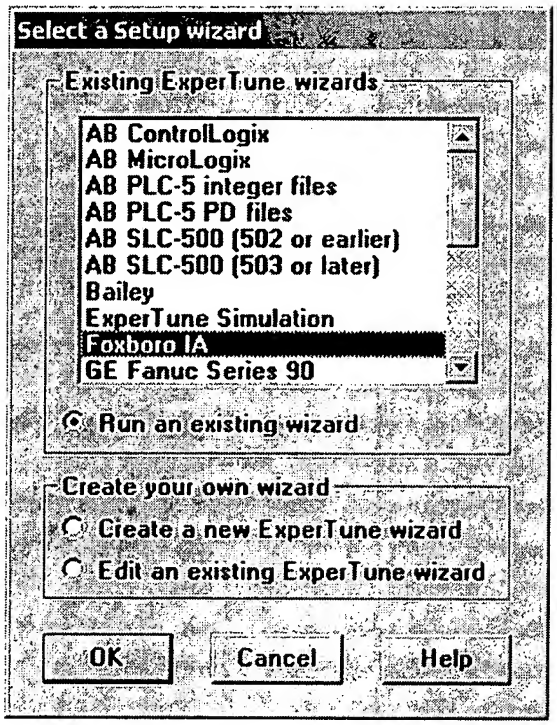


Figure 33 is a repeat of figure 4. With figure 4, the user chose to use the wizard builder invention to create a new wizard. Figures 5 to 32 are screens from the wizard builder invention where the user was using the wizard builder invention to create a new wizard named "Foxboro IA". Now that the new wizard has been created, the user can choose to run the new "Foxboro IA" wizard. Figures 34 to 41 are screenshots from running the new setup wizard that has been created by the wizard builder invention. Note that both the wizard builder and the setup wizard, that the wizard builder has created, are both run from within the same application program. This, and the figure which follow up to figure 41, proves that claim 6 of the wizard builder invention existed prior to 24 November 2000.

Figure 34. The created wizard asks for the loop tag.

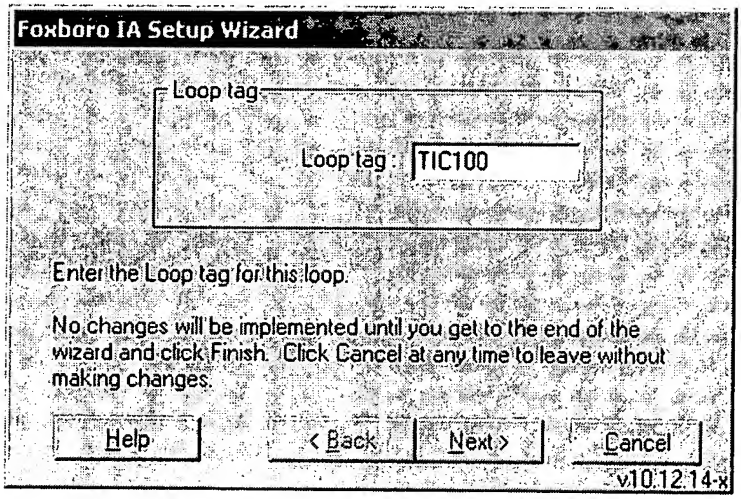


Figure 34 is where the Foxboro IA setup wizard which has been created by the wizard builder invention is asking for the loop tag name. The prompt "loop tag" was entered by the user into the wizard builder invention when the setup wizard was being created, see figure 11.

Figure 35. The created wizard asks for the PV engineering span

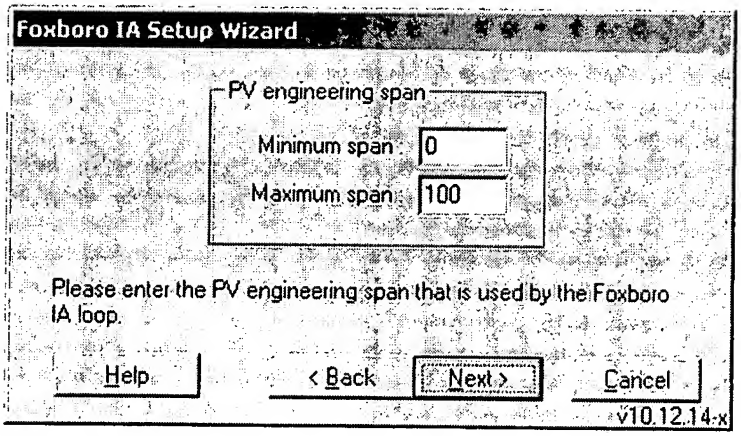


Figure 35 is where the Foxboro IA setup wizard which has been created by the wizard builder invention is asking for the Process Variable engineering span. When the user was using the wizard builder invention to create the Foxboro IA setup wizard he indicated that the PV Engineering Span could not be read automatically from the loop controller and must be entered manually. See figure 23. This is an example of running a setup wizard and the setup wizard asking the user for information that is unique to a new Single Loop Controller, Programmble Logic Controller or Distributed Control System. After the wizard is finished the application the application program will be left with having connection details to the new Single Loop Controller, Programmble Logic Controller or Distributed Control System. This proves that claim 10 of the wizard builder invention existed prior to 24 November 2000.

Figure 36. The created wizard asks for the CO engineering span

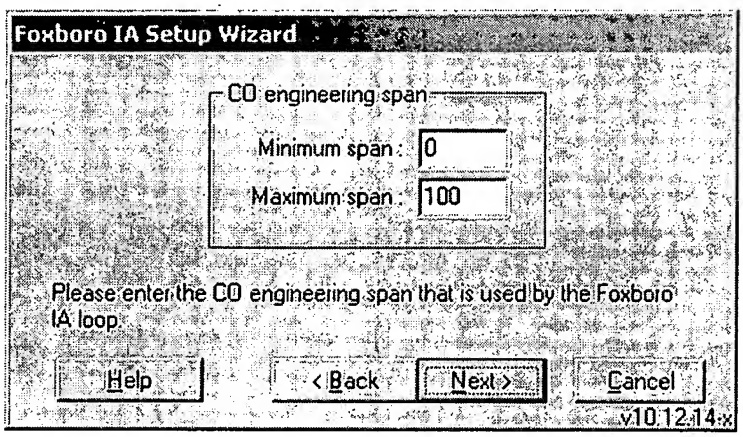


Figure 36 is where the Foxboro IA setup wizard which has been created by the wizard builder invention is asking for the Controller Output engineering span. When the user was using the wizard builder invention to create the Foxboro IA setup wizard he indicated that the CO Engineering Span could not be read automatically from the loop controller and must be entered manually. See figure 25.

Figure 37. The created wizard asks for the Controller Type

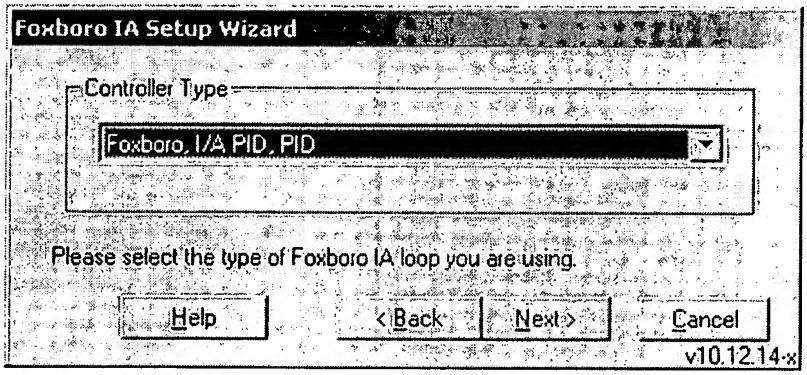


Figure 37 is where the Foxboro IA setup wizard which has been created by the wizard builder invention is asking for the Controller Type. When the user was using the wizard builder invention to create the Foxboro IA setup wizard he indicated that the Controller Type could not be read automatically from the loop controller and must be entered manually. He then indicated which controller type values were possible. See figures 27 and 28. Therefore when the Foxboro IA setup wizard is running, the controller type options available are those selected on the earlier wizard builder invention screenshot, figure 28.

Figure 38. The created wizard asks for the Process direction

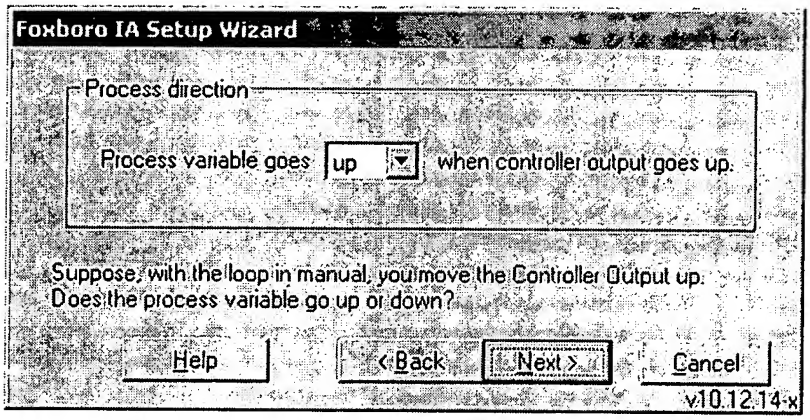


Figure 38 is where the Foxboro IA setup wizard which has been created by the wizard builder invention is asking for the Process Direction. When the user was using the wizard builder invention to create the Foxboro IA setup wizard he indicated that the Process Direction could not be read automatically from the loop controller and must be entered manually. See figure 30. Therefore when the Foxboro IA setup wizard is running, it asks the user for the process direction.

Figure 39. The created wizard asks for the engineering units

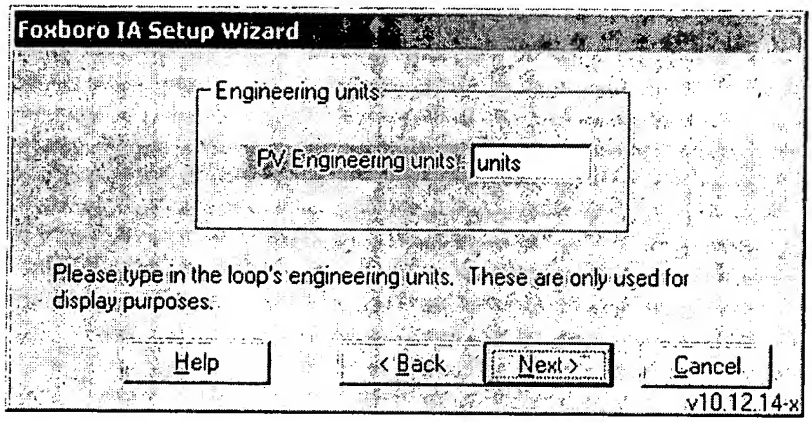


Figure 39 is where the Foxboro IA setup wizard, which has been created by the wizard builder invention, is asking for the loop's engineering units. In this early implementation of the wizard builder invention, the created setup wizard always asks for the engineering units. In later implementations, the user of the wizard builder invention has the option of setting the engineering units to be read automatically from the loop controller.

Figure 40. The created wizard asks for the sample interval

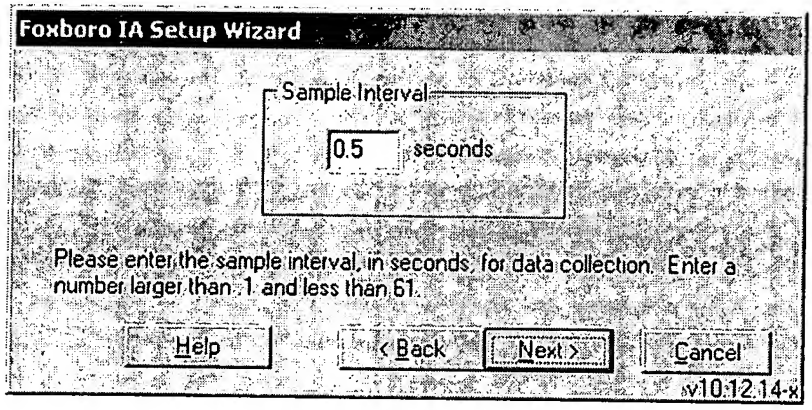


Figure 40 is where the Foxboro IA setup wizard, which has been created by the wizard builder invention, is asking for the loop's sample interval. The created setup wizard always needs to ask for the loop's sample interval. It can never be read automatically from the loop controller.

Figure 41. The created wizard's summary screen

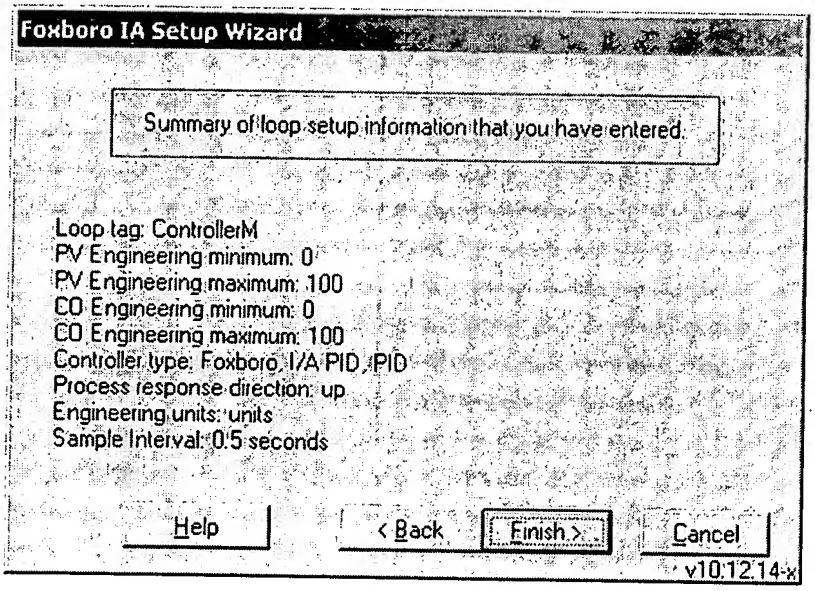


Figure 41 is the summary screen for the Foxboro IA setup wizard, which has been created by the wizard builder invention. When the user clicks finish, he will have finished setting up a de-facto DDE interface to his loop controller.

Figures 1 to 3 prove that the wizard builder invention, demonstrated in figures 4 to 41, existed prior to 24 November 2000. The screenshots in figures 4 to 41 have been generated by compiling and running source code that existed 24 November 2000 and have been maintained by the Microsoft SourceSafe system since that date. Figures 4 to 32 are screenshots from the wizard builder invention creating a new setup wizard named "Foxboro IA". This was done by asking questions in plain English. The user does not need knowledge of writing or using computer programs to answer the questions. Figures 33 to 41 are screenshots obtained when the created setup wizard itself runs.

Note that in figures 33 to 41, the DDE Application name, see figure 6, was not requested because the wizard was aware that all connections should use the DDE Application name as defined in the wizard in figure 6. This proves that claim 9 of the wizard builder invention existed prior to 24 November 2000.

Wizard Bulder Invention Timescale EXHIBIT C

1. October 2000.
I worked on the invention.

2. 6 November 2000.
The first complete copy of the invention was put into safekeeping. See attached "Adding my invention to our ExperTune source files.doc."

3. 15 November 2000.
The first complete copy of the help screens, which describe the invention to a user of our software, was put into safekeeping. See "Invention creation evidence.doc".

4. December 2000.
My invention was given to 2 of our customers: Leech and Marsh for their comments. Marsh made some comments by email in January 2001. Leech made some comments by email in March 2001.

5. 18 January 2001.
Email from Chuck Marsh of Siemens with some comments about the invention. Chuck makes a number of references to the wizard builder invention in the email:

"wizard setup procedure", in paragraph 1.
"the wizard only tests for values of "0" or "1".", in paragraph 2.
"The "easy" solution is to create 25 wizards", in paragraph 6.
"can the wizard be modified to allow for a optional second split?" in paragraph 7.
"Attached is the wizard file we created for your review.", the final paragraph.

Full email transcript.
****
Envelope-to: richard@barraclough.u-net.com
From: chuck.marsh@smpa.siemens.com
To: richard@expertune.com
Cc: russell.walters@smpa.siemens.com, bill.wright@smpa.siemens.com,
moulton@diagtools.com
Subject: ExperTune Wizards
Date: Thu, 18 Jan 2001 07:51:14 -0500
X-Mailer: Internet Mail Service (5.5.2650.21)

Richard,

While doing some OPC integration tests on our APACS and Procidia controllers with Geoff using the latest version of ExperTune (10.12.10 beta), we uncovered a couple of issues with the wizard setup procedure and addressing scheme.

The first issue is relatively simple. When reading the process response parameter while generating a new .tun file, the wizard only tests for values of "0" or "1". It should also allow for "True" or "False" which is what is returned by our APACS controller's OPC server. This appears to not be an issue with the Procidia controller.

The second is a little more complex and has to do with a "double variability" in the item addressing that isn't covered by a simple prefix/suffix split. In the Procidia controller, every parameter has a unique name which is generally related to the generic loop number (e.g. L1PF or L2PGF). The various parameters are "grouped" by data type (e.g. Dynamic Real or Static Real). Each loop can have a unique tag name (e.g. TIC5147 or PIC2110). In the OPC browser, the hierarchy contains the station name, the tag name, the data type name, and the parameter name. For instance, the above examples show up as:

Reactor#5.TIC5147.Dynamic Real.L1PF
Reactor#5.TIC5147.Static Real.L1PGF
Reactor#5.PIC2110.Dynamic Real.L2PF
Reactor#5.PIC2110.Static Real.L2PGF

In this example configuration, TIC5147 has been assigned to loop 1 and PIC2110 has been assigned to loop 2.

The "easy" solution is to create 25 wizards, one for each of the possible loops in the Procidia controller with the prefix ending after the loop tag and the suffix hard-coded to contain the data type and loop number in the parameter name. However, this presents an overwhelming number of choices in the wizard list box so is not really acceptable.

Can you suggest a different way to handle this or can the wizard be modified to allow for a optional second split?

Attached is the wizard file we created for your review.

<<procidia modbus.xwo>>
Thanks for any info.

Charles E. (Chuck) Marsh
Principal Product Specialist
Siemens Moore Process Automation, Inc.
Ph: 215-646-7400 ext 2346
Fax: 215-283-2801
mailto:chuck.marsh@smpa.siemens.com
www.smpa.siemens.com

****

6. 23 January 2001.
The first copy of technical documentation of the Wizard Builder invention was put into safekeeping. See attached "Comments about technical documentation about wizards.doc".

7. 29 January 2001.
A second email from Chuck Marsh of Siemens with some further comments about the invention. Chuck makes a number of references to the wizard builder invention in the email:

"Geoff just dropped by with the latest version of ExperTune containing the Procidia wizard", in paragraph 1.
"... adding one other selectable item, and the wizard name." in paragraph 1
"I suggest changing the wizard name from "Moore, Procidia Modbus" to "Siemens Moore Procidia".", in paragraph 7.

Full email transcript.
****
Envelope-to: richard@barraclough.u-net.com
From: chuck.marsh@smpa.siemens.com
To: richard@expertune.com
Cc: russell.walters@smpa.siemens.com, bill.wright@smpa.siemens.com, moulton@diagtools.com
Subject: ExperTune Procidia wizard
Date: Mon, 29 Jan 2001 11:58:27 -0500
X-Mailer: Internet Mail Service (5.5.2650.21)

Richard,

Geoff just dropped by with the latest version of ExperTune containing the Procidia wizard and there appears to be one bug in it. I also have a few suggestions concerning some of the prompts, adding one other selectable item, and the wizard name.

The bug appears to be the address created for the valve maximum value. In our test, we were attempting to create a file for "Reactor #5.TC5301" at loop number 9. The error message returned indicated that it could not read "Reactor #5.TC5301.Static Real.L8VMXF9VMXF". The "8VMXF" should not be there, it should be only "L9VMXF". I don't know if any other addresses are being created like this as we couldn't get past this one.

As far as the prompts are concerned, here are my suggestions:

1. For the Loop Tag, I suggest making the data entry prompt something like "Full path to Loop Tag:" leaving the frame label as is. For the text entry default, I suggest "Tag Name":

2. For the Block number, since our nomenclature uses the term "Loop" for this reference and since our "blocks" are within "loops", I suggest the prompts for this dialog box be changed to "Loop Number" and the default entry be "1".

The additional selectable item has to do with the OPC server. It turns out that this addressing scheme is used by both the Procidia Modbus OPC server and the Procidia LIL OPC server. Therefore, I suggest adding a radio button dialog box to select the appropriate server prior to entering the Loop Tag. The Modbus server name is still "MOORE.ProcidiaModbus" while the LIL server name is "MOORE.ProcidiaLIL". I would use the Modbus server as the default since that seems to be slightly more common at the moment.

Along the same lines, I suggest changing the wizard name from "Moore, Procidia Modbus" to "Siemens Moore Procidia".

One other thing on a slightly different topic. For our integration with ProcessSuite where we are creating the tun files, we are writing the "minimum" entries you indicated a while ago that are needed in this file. My question concerns the version number. Does it have to be the complete "major.minor.revision" syntax and does it need to be the latest version or can it be written as something like "major.xx.xx"? Currently, we have a string tag defined to contain this information and, if possible, I would like to default it to some common text so our customers are not required to fire up ExperTune independently to get the version and then manually enter it into this tag.

If you need any additional information, let me know.

Charles E. (Chuck) Marsh
Principal Product Specialist
Siemens Moore Process Automation, Inc.
Ph: 215-646-7400 ext 2346
Fax: 215-283-2801
mailto:chuck.marsh@smpa.siemens.com
www.smpa.siemens.com

****

8. 9 March 2001. (first email)

First email from David Leech, the of Air Products, with some comments about the invention. David makes a number of references to the wizard builder invention in the email:

"Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh.", in the title.
"Attached is a copy of the GUS Wiz that I dev'd--it reads all avail params that are now pos. to fetch in the TDC 3000 sys., and I tested it at...", in paragraph 1.
".. this could be read in also if the Wiz Builder could decode alpha chars for this entry field..." in paragraph 1.
" incl. screen captures for the GUS Wiz creation and usage", in paragraph 2.

Full email transcript.
****
> -----Original Message-----
> From: LEACH,DAVID B.
> Sent: Thursday, March 08, 2001 5:44 PM
> To: 'john.gerry@expertune.com'
> Cc: 'richard.barraclough@expertune.com'
> Subject: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh.
> req.
>
> Hi John:
>
> Thought I'd better send you this good stuff before I forget again...
>
> 1. Attached is a copy of the GUS Wiz that I dev'd--it reads all avail.
> params that are now pos. to fetch in the TDC 3000 sys., and I tested it at
> Honeywell Ft. Wash. The only two items that cannot now be read in are:
> PID algo. type (can't discern for the gen'l user since there is a long
> list of algos. w/o unique identifiers,) and the ctlr action. On the ctlr
> action, this could be read in also if the Wiz Builder could decode alpha
> chars for this entry field, because what is returned from the CTLACTN
> parameter fetch is: "DIRECT" or "REVERSE." I would like to request alpha
> char. decoding cap. as an enh. of the Wiz Builder for the next vers. of
> ExperTune, for this field and the PID equation field (see next.) Also,
> for the PID ctl algo., it would similarly be useful if alpha character
> decoding were avail. for this parameter, because what is returned from the
> CTLEQN parameter fetch is: "EQA," "EQB," "EQC," "EQD." As you are no doubt
> aware, with just knowing the CTLEQN alone, one cannot determine which
> Honeywell PID Algo. is used since there are two different forms
> (interactive & noninteractive,) with Eqns A, B, C, D for each form.
> However, most APCI Honeywell TDC 3000 systems standardize on one form
> (interactive), so if we could fetch the CTLEQN parameter and decode it to
> indicate which equation is being used, then we could equate that to an
> algo. that is now in the ExperTune list of avail. TDC 3000 ctl algos.

> Also note that there are actually a total of four TDC 3000 PID algos, as
> follows, and one is missing from the ExperTune Adv. DCS Honeywell TDC 3000
> Library of algos (I think Eqn. "D"):
> "A" = Full PID
> "B" = PI on Err, D on PV chg.
> "C" = I on err, PD on PV chg
> "D" = Integral ctl only (admittedly rarely if ever? used)
>
> 2. Attached is also a more complete excerpt from the ExperTune user's
> guide that I wrote that has the chapter on configuring the GUS for use
> w/ExperTune, incl. screen captures for the GUS Wiz creation and usage.
> Mostly screen captures, but still useful I think. I'll send the 1st part
> of this doc. in this email, then the 2nd part in a F/U email, since our
> email sys. is limited to a 5 MB max. file attachment.
>
> Think Spring!
> David
>
> David B. Leach
> Engineering Associate
> Air Products and Chemicals, Inc.
> GEO Process Controls A32H3
> 7201 Hamilton Blvd.
> Allentown, PA 18195-1501 U. S. A.
> Ph. 610-481-8693
> FAX 610-481-4948
>
****

9. 9 March 2001. (second email)
A second email from David Leech, the of Air Products, with some comments about the invention. David makes a number of references to the wizard builder invention in the email:

Email subject: "RE: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh. req."
Paragraph 1: " Thx much for responding so quickly and accepting my suggestions for enhancements to the Wiz Builder. The Wiz Builder is a great feature and I can see why you would want to protect that intellectual property with a patent."
"I would like to get a copy of the new ExperTune version that contains the Wiz Builder", in paragraph 2.
Final paragraph: "I'll mail the APCI custom Honeywell Wiz doc. CD to you.

Full email transcript.

****
Envelope-to: richard@barraclough.u-net.com
X-VirusChecked: Checked
X-Server-Uuid: 0a59d787-ec29-11d2-907b-0008c7f41790
From: "LEACH,DAVID B." <LEACHDB@apci.com>
To: "'John Gerry'" <john.gerry@expertune.com>
cc: "'Richard.Barraclough@Expertune.com'"
<Richard.Barraclough@expertune.com>,
"'moulton@diagtools.com'" <moulton@diagtools.com>
Subject: RE: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh. req.
Date: Fri, 9 Mar 2001 12:16:30 -0500
X-Mailer: Internet Mail Service (5.5.2650.21)
X-WSS-ID: 16B7D07E394960-01-01

Hi John:

Thx much for responding so quickly and accepting my suggestions for enhancements to the Wiz Builder. The Wiz Builder is a great feature and I can see why you would want to protect that intellectual property with a patent.

I would like to get a copy of the new ExperTune version that contains the Wiz Builder that will accept alpha characters for both the ctl algo. and the ctlr action (direction), but only for lic. serial # 3451, so that we can test it for use in our Chinese project. No rush--see below for more comments on this project.

I agree with your decn to not add Eqn "D" to the list of supported TDC 3000 algos in ExperTune, because it is rarely used, and as you mentioned, there are much higher development priorities. Also, FYI we are not buying any more Honeywell TDC 3000 systems these days, we only need get into them when as in the current situation a customer requests that system and is willing to pay the premium for it. APCI does have many of them installed on the Chem side, however I've not been successful in getting Chem much interested in using ExperTune (that's a whole other story that I won't get into here.)

Also, pls give my thanks to Karen for express shipping copies of the latest prod. vers. of ExperTune to me last month, the one copy I wanted post haste was received in time for use in China. Don Kosciusko is using it now there, but unfortunately the Chinese have damaged our plant so badly with their construction crew that he will need to return again next week, probably not going back for another two months.

I'll mail the APCI custom Honeywell Wiz doc. CD to you.

Best wishes to all for a good weekend,
David
****

10. 30 April 2001.
ExperTune press release announcing the wizard builder invention.

This press release and a description of the invention can be viewed at the web archive web site (web.archive.org).

a) Go to http://web.archive.org
b) Next to the "Take me back" button, type "http://www.expertune.com" and click "Take me back".
c) Click the link "May 15 2001"
d) Click the "What's New" link. A page appears that describes the Wizard Builder invention. For marketing purposes the Wizard Bulder invention was called "Self-Adaptive Setup Wizards". **This proves the wizard builder invention was in existence and described on the ExperTune web site before 15 May 2001.**
e) Click the "News release" link at the top of the page. A "Path index error" appears.
f) Click the expertune.com/NewsReleases.html link.
g) Examine page 7 and click the expertune.com/NewsReleases.html link on page 7.
h) Click the "Aug 20, 2001" link.
i) In the list of press releases, click the link: Optimize Any Control Loop via Self-Adaptive Connection Wizards (April 2001). **The archived press release appears, proving that the press release was announced before 20 August 2001.**

The full web link to this archived press release is:
http://web.archive.org/web/20010820232750/http://expertune.com/NewsReleases.html#NewReleaseApr01

Full transcript of the press release. The press release includes control codes for an old word processor.
****
April 30, 2001@*
For bitmap see: www.expertune.com/NewsReleases.html@*
@*
@blankspace[1.5 inches]
@big[Optimize Any Control Loop via Self-Adaptive Connection Wizards]

@begin[text, justify no, spacing=2]

The greatest barrier to optimizing control loops is often getting analysis software connected to the loop. Now, ExperTune has made this easy for ANY controller.

Use ExperTune's optimization tools to increase the efficiency of your process. Use ExperTune software to fully optimize control loops in any industrial controller. ExperTune includes powerful valve testing and wear analysis, statistical and variability analysis, linearization for optimal production at all production rates, pH linearizer, power spectral density to uncover hidden cycles, loop simulation, modeling, robustness, multivariable, frequency response and PID loop tuning tools.

ExperTune includes an extensive list of setup wizards to get you connected to your controller. However, if there's not already a connection wizard in the list for your controller, ExperTune software automatically develops one for you the first time you connect to the controller.

Your first time connecting, answer the Wizard's detailed questions. When you have finished connecting your first loop, ExperTune will have created a Wizard making it super-easy to connect to more loops.

The wizards connect to your controller using your DDE or OPC server. DDE is Microsoft's Windows Dynamic Data Exchange built into 95,98, NT and 2000. OPC is Ole for Process Control. There are DDE or OPC servers for virtually all modern digital controllers.

For information contact: Glenn Lovensheimer, ExperTune Inc., sales@@expertune.com
@end[text]
****

OIPE
NOV 15 2007
PATENT & TRADEMARK OFFICE
IAP1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re application of: Richard Alan Barraclough

Filed: Dec. 27, 2001

Serial Number: 10/034467

Title: Wizard Builder For Application Software

Examiner: Ryan F. Pitaro

Group Art Unit: 2174

Declaration Under Rule 131

State of Indiana

County of Marion

I, David Leach, do hereby declare and say the following.

My address is 1223 West Morris Street, LTC-N, Indianapolis, IN 46122-1700

During the period of about June, 2001, I was an employee of Air Products and Chemicals, Inc, 7201 Hamilton Blvd, Allentown, PA 18195-1501,

a customer of ExperTune, Inc. to which this patent application has been assigned. I have no family or similar relationship to the Inventor or to the management of ExperTune, Inc. I have no ownership or financial interest in the Invention, or ExperTune, Inc. I have no business relationship to ExperTune, Inc or the Inventor except as a customer. This

Declaration refers to the Invention as covered in the application claims (Exhibit A attached) as submitted to the Patent Office in an Amendment and Response submitted June 26, 2007. I declare and say that I used the Invention at least as early as March 8, 2001. Attached to this Declaration is Exhibit B documenting that the Invention of the above Application was used by me, at least as early as March 8, 2001. Specifically, Exhibit B shows this documented in the form of emails.

I further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief, are believed to be true; and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the patent application or any patents issuing therefrom.

D. J B. Leach
[name]

10/31/2007
(date)

EXHIBIT A {CLAIMS IN JUNE 26, 2007 RESPONSE TO PTO}

This listing of claims will replace all prior versions, and listings, of claims in the Application.

Listing of Claims:

1. (Currently amended) A computer program process, called a wizard builder, executable on a computer, for adapting an application program to function with a Single Loop Controller, Programmable Logic Controller, or Distributed Control System , wherein the wizard builder constructs a setup wizard which sets up a de facto interface between a Single Loop Controller, Programmable Logic Controller, or Distributed Control System and the application program, wherein the setup wizard is constructed by means of asking a human user of the application program for answers to simple verbal questions, in English or other language convenient to a human user, about the model and manufacturer of the Single Loop Controller, Programmable Logic Controller, or Distributed Control System , and wherein the wizard builder does not require a human user to have any knowledge of writing or using computer programs.

2. (Currently amended) The process of claim 1, further comprising a computer program process, wherein a human user of the application program can alter the setup wizard, thus creating another setup wizard, which can be run to set up an application program with connection details and properties of other Single Loop Controllers, Programmable Logic Controllers, or Distributed Control Systems .

3. (Original) The process of claim 1, further comprising a computer program process, wherein the setup wizard constructed by the computer program process is adapted to be moved to another computer by a human user without any knowledge of writing computer programs.

4. (Original) The process of claim 3, wherein the setup wizard is in the form of a disk file that can be readily moved to another computer.

5. (Currently amended) The process of claim 2, wherein the setup wizard is adapted to be altered by the wizard builder program which displays original answers to the verbal or other suitable language questions and provides a prompt for a human user to enter new answers about the Single Loop Controller, Programmable Logic Controller, or Distributed Control System .

6. (Currently amended) The process of claim 1, further comprising a server program which contains data values for many Single Loop Controllers, Programmable Logic

Controllers, or Distributed Control Systems , and wherein the setup wizard runs and sets up a de facto interface between the application program, and the server program.

7. (Currently amended) The process of claim 1, further comprising a process for creating the setup wizard comprising the steps of:
(a) the user's instructing the wizard builder to create a setup wizard,
(b) the wizard builder's displaying verbal questions for the user requesting details of connection to, and operating properties of, or both, a first Single Loop Controller, Programmable Logic Controller, or Distributed Control System , and subsequently, in sequence, of any other Single Loop Controller, Programmable Logic Controller, or Distributed Control System having different connection details or operating properties, and
(c) the wizard builder's storing answers in a setup wizard file which defines the setup wizard

8. (Currently amended) The process of claim 1, further comprising creating a setup wizard file, and further comprising a process for altering the setup wizard comprising the steps of:
(a) the user's instructing the wizard builder to alter the setup wizard,
(b) the wizard builder's rerunning the verbal questions asked when the setup wizard file was created,
(c) the wizard builder's setting default answers to the verbal questions from the setup wizard file,
(d) if the user alters a previous answer, the wizard builder's altering the setup wizard file,
(e) the wizard builder's asking the user by verbal questions for details of connection to, or operating properties of, or both, a first Single Loop Controller, Programmable Logic Controller, or Distributed Control System , and subsequently, in sequence, any other Single Loop Controller, Programmable Logic Controller, or Distributed Control System having different connections details or operating properties, and
(f) the wizard builder's storing any alternate answers in the setup wizard file.

9. (Currently amended) The process of claim 1, further comprising creating a setup wizard file, and further comprising a process for running a setup wizard comprising the steps of:
(a) the user's asking the setup wizard to run ,
(b) the setup wizard's reading the setup wizard file,
(c) the setup wizard's determining whether the answers to verbal questions are already in the setup wizard file or can be inferred from the answers in the setup wizard file, and
(d) if the answer in the preceding step is yes, stopping the process,
whereby the application program is left in a state of having connection details and properties of the Single Loop Controllers, Programmable Logic Controllers, or Distributed Control Systems .

10. (Currently amended) The process of claim 1, further comprising creating a setup wizard file, and further comprising a process for running a setup wizard comprising the steps of:

(a) the user's asking the setup wizard to run ,
(b) the setup wizard 's reading the setup wizard file,
(c) the setup wizard's determining whether the answers to all the verbal questions are already in the setup wizard file or can be inferred from the answers in the setup wizard file,
(d) if the answer to the preceding question is no, the setup wizard's asking the user for information that is unique to a new Single Loop Controller, Programmable Logic Controller, or Distributed Control System , and
(e) the setup wizard 's incorporating connection details and properties of a new Single Loop Controller, Programmable Logic Controller, or Distributed Control System , whereby the application program is left in a state of having connection details and properties of the Single Loop Controller, Programmable Logic Controller, or Distributed Control System .

11. (Previously presented) The process of claim 1, wherein the wizard builder computer program process is contained within the application software, and wherein a setup wizard file is held on a memory means within a computer.

12. (Original) The process of claim 1, wherein the computer program process wizard operates without the use of script files.

13. (Cancelled)

14. (Original) The process of claim 7, wherein the setup wizard file is adapted to be moved to another computer for use with the same or similar application program installed in the other computer.

15. (Original) The process of claim 8, wherein the setup wizard file is adapted to be moved to another computer for use with the same or similar application program installed in the other computer.

16. (Previously presented) The process of claim 3 wherein the computer running the application program comprises a personal computer, containing a communications card and server software that drives and communicates with the communications card, and wherein the personal computer is running an operating system software means.
17. (Previously presented) The process of claim 14, wherein the setup wizard file is adapted be moved to another computer by a process of using a transfer means selected from the group consisting of: a floppy disk, serial link, network connection, or email.
18. (Original) An article of manufacture comprising a computer readable memory means on which is recorded the computer program process of claim 3.
19. (Original) The process of transferring by a means for transferring computer programs in real time, the computer program process of claim 3.
20. (Original) An article of manufacture comprising a computer means programmed with the computer program process of claim 3.

21. (Cancelled)

Exhibit B

Envelope-to: richard@barraclough.u-net.com
X-VirusChecked: Checked
X-Server-Uuid: 0a59d787-ec29-11d2-907b-0008c7f41790
From: "LEACH,DAVID B." <LEACHDB@apci.com>
To: "'John Gerry'" <john.gerry@expertune.com>,
"'G. Moulton'" <moulton@diagtools.com>
cc: "Richard Barraclough" <richard@expertune.com>
Subject: RE: Honeywell / Air Products
Date: Fri, 1 Dec 2000 12:24:00 -0500
X-Mailer: Internet Mail Service (5.5.2650.21)
X-WSS-ID: 1639013E1250419-01-01

Hi John & Geoff:

Thx much for your help, and for pointing out and providing the GUS help screen in ET (wish I had thought to check for this yesterday while at the Fort in the heat of battle.) I expect after round 2 at the Fort that I'll be able to add to the knowledge base (and the GUS help screen) considerably about use of TPSDDE. Typical of many HW products, the TPSDDE Cust. Rel. Guide (manual) is 100 pages with an assumption that the user already has deep knowledge of WinNT, DDE, and HW-ease. Wow, all this effort and $2K for 10 points of read only data! TPSDDE appears to be an afterthought, and designed primarily for casual Excel use (the doc. only cover use of that DDE Client app.) An ET wizard to configure a loop for TPSDDE would be very helpful. However there is still much that must be done on the GUS side to get TPSDDE configured properly to run the 1st time, including using ddeshare to set up a trusted NT DDE share (ugh!) One way or the other, I'll get it running the next time and let you know the outcome.

Thx again for your help, the info. you provided was useful.

Best,
David

-----Original Message-----
From: John Gerry [mailto:john.gerry@expertune.com]
Sent: Friday, December 01, 2000 11:47 AM
To: 'G. Moulton'
Cc: LEACH,DAVID B.; Richard Barraclough
Subject: RE: Honeywell / Air Products

Geoff,

There is a help window in ExperTune DDE for the GUS. Search help for GUS. Below are some additional notes we have that may be helpful.

Version 10.12.x of ExperTune includes many new wizards including one to Honeywell via GUS. The new Adaptive Setup Wizard builder creates a new wizard the first time you connect to a new controller. New controllers are those that we do not already have a Setup Wizard to.

http://www.expertune.com/wizards/

Let us know...

john

08/08/97 Lyondell with a Honeywell "GUS" and a NT 4.0
computer which connects directly to control network using a board.
Communications between computer and board must be explicitly started
by customer after rebooting before computer will operate normally.

11/10/00 jpg, rab, Marathon Ashland KT
GUS station, Using Honeywell TPS DDE
* Refresh and scan time is configurable in the GUS and defaults to
  either 2 or 4 seconds.
* The DDE Connection is read-only and this is documented by Honeywell
* The DDE connection only allows 10 peices of information at a time

john

-----Original Message-----
From: G. Moulton [mailto:moulton@diagtools.com]
Sent: Friday, December 01, 2000 10:25 AM
To: John Gerry; Glenn Lovensheimer
Subject: Honeywell / Air Products

John and Glenn,
FYI
David Leach was at Honeywells' Ft Washington office yesterday with one of his clients from China to perform tests on the GUS DDE with ET. They had problems which were ultimately defined to be Honeywell hardware related. David will return at a later date to complete the test.

My contact at Honeywell was out yesterday. I have sent him an email and left a voice message that I will assist his tech whenever they need to test the setup and assure that Davids next visit goes well.

Again, this does not seem to be a problem of ET or a problem due to Honeywell software changes but one of Honeywell hardware configuration.

Best,
Geoff

Envelope-to: richard@barraclough.u-net.com
X-VirusChecked: Checked
X-Server-Uuid: 0a59d787-ec29-11d2-907b-0008c7f41790
From: "LEACH,DAVID B." <LEACHDB@apci.com>
To: "'john.gerry@expertune.com'" <john.gerry@expertune.com>
cc: "'richard.barraclough@expertune.com'"
<richard.barraclough@expertune.com>

Subject: FW: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh. Req.
Date: Thu, 8 Mar 2001 18:51:00 -0500
X-Mailer: Internet Mail Service (5.5.2650.21)
X-WSS-ID: 16B6C56C72960-01-01

Hi John & Richard:

I'm sending this email again for the 3rd time, this time with the GUS Wiz only and w/o doc. file attachment, because no matter how I try to break it up with zip files, this archaic email system will not send it through (file attachment too large.) I'll snail mail the doc. to John in a CD-R.

David

> <<HW_TDC3000 _GUS_APCI.xwd>>
>
> -----Original Message-----
> From: LEACH,DAVID B.
> Sent: Thursday, March 08, 2001 5:44 PM
> To: 'john.gerry@expertune.com'
> Cc: 'richard.barraclough@expertune.com'
> Subject: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh.
> req.
>
> Hi John:
>
> Thought I'd better send you this good stuff before I forget again...
>
> 1. Attached is a copy of the GUS Wiz that I dev'd--it reads all avail.
> params that are now pos. to fetch in the TDC 3000 sys., and I tested it at
> Honeywell Ft. Wash. The only two items that cannot now be read in are:
> PID algo. type (can't discern for the gen'l user since there is a long
> list of algos. w/o unique identifiers,) and the ctlr action. On the ctlr
> action, this could be read in also if the Wiz Builder could decode alpha
> chars for this entry field, because what is returned from the CTLACTN
> parameter fetch is: "DIRECT" or "REVERSE." I would like to request alpha
> char. decoding cap. as an enh. of the Wiz Builder for the next vers. of
> ExperTune, for this field and the PID equation field (see next.) Also,
> for the PID ctl algo., it would similarly be useful if alpha character
> decoding were avail. for this parameter, because what is returned from the
> CTLEQN parameter fetch is: "EQA," "EQB," "EQC," "EQD." As you are no
doubt
> aware, with just knowing the CTLEQN alone, one cannot determine which
> Honeywell PID Algo. is used since there are two different forms
> (interactive & noninteractive,) with Eqns A, B, C, D for each form.
> However, most APCI Honeywell TDC 3000 systems standardize on one form

> (interactive), so if we could fetch the CTLEQN parameter and decode it to
> indicate which equation is being used, then we could equate that to an
> algo. that is now in the ExperTune list of avail. TDC 3000 ctl algos.
> Also note that there are actually a total of four TDC 3000 PID algos, as
> follows, and one is missing from the ExperTune Adv. DCS Honeywell TDC
3000
> Library of algos (I think Eqn. "D"):
> "A" = Full PID
> "B" = PI on Err, D on PV chg.
> "C" = I on err, PD on PV chg
> "D" = Integral ctl only (admittedly rarely if ever? used)
>
> 2. Attached is also a more complete excerpt from the ExperTune user's
> guide that I wrote that has the chapter on configuring the GUS for use
> w/ExperTune, incl. screen captures for the GUS Wiz creation and usage.
> Mostly screen captures, but still useful I think. I'll send the 1st part
> of this doc. in this email, then the 2nd part in a F/U email, since our
> email sys. is limited to a 5 MB max. file attachment.
>
> Think Spring!
> David
>
> David B. Leach
> Engineering Associate
> Air Products and Chemicals, Inc.
> GEO Process Controls A32H3
> 7201 Hamilton Blvd.
> Allentown, PA 18195-1501 U. S. A.
> Ph. 610-481-8693
> FAX 610-481-4948
>

Envelope-to: richard@barraclough.u-net.com
X-VirusChecked: Checked
X-Server-Uuid: 0a59d787-ec29-11d2-907b-0008c7f41790
From: "LEACH,DAVID B." <LEACHDB@apci.com>
To: "'John Gerry'" <john.gerry@expertune.com>
cc: "'Richard.Barraclough@Expertune.com'"
<Richard.Barraclough@expertune.com>,
"'moulton@diagtools.com'" <moulton@diagtools.com>

Subject: RE: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh. req.
Date: Fri, 9 Mar 2001 12:16:30 -0500
X-Mailer: Internet Mail Service (5.5.2650.21)
X-WSS-ID: 16B7D07E394960-01-01

Hi John:

Thx much for responding so quickly and accepting my suggestions for enhancements to the Wiz Builder. The Wiz Builder is a great feature and I can see why you would want to protect that intellectual property with a patent.

I would like to get a copy of the new ExperTune version that contains the Wiz Builder that will accept alpha characters for both the ctl algo. and the ctlr action (direction), but only for lic. serial # 3451, so that we can test it for use in our Chinese project. No rush--see below for more comments on this project.

I agree with your decn to not add Eqn "D" to the list of supported TDC 3000 algos in ExperTune, because it is rarely used, and as you mentioned, there are much higher development priorities. Also, FYI we are not buying any more Honeywell TDC 3000 systems these days, we only need get into them when as in the current situation a customer requests that system and is willing to pay the premium for it. APCI does have many of them installed on the Chem side, however I've not been successful in getting Chem much interested in using ExperTune (that's a whole other story that I won't get into here.)

Also, pls give my thanks to Karen for express shipping copies of the latest prod. vers. of ExperTune to me last month, the one copy I wanted post haste was received in time for use in China. Don Kosciusko is using it now there, but unfortunately the Chinese have damaged our plant so badly with their construction crew that he will need to return again next week, probably not going back for another two months.

I'll mail the APCI custom Honeywell Wiz doc. CD to you.

Best wishes to all for a good weekend,
David

-----Original Message-----
From: John Gerry [mailto:john.gerry@expertune.com]
Sent: Friday, March 09, 2001 10:09 AM
To: LEACH,DAVID B.
Cc: Richard Barraclough; Geoff Moulton (E-mail)
Subject: FW: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh. req.

Dave,

A million thanks as always! both for your helpful comments and for sending the wizard.

Alpha character decoding for the controller algo is done! We will do the direction decoding in characters probably by next week, and then probably will put this into production.

Do you want a copy of it, if it is ready next week?

Since controller "D" is integral only, we do not currently have plans to add this algorithm to ExperTune software's list: 1) not used much, 2) any tuning would be for I portion only. Biggest reason is that we do not think it is used much and based on the amount of time it would take to add it, have other developments that we think would benefit more people with more impact ... priorities.

john

-----Original Message-----
From: LEACH,DAVID B. [mailto:LEACHDB@apci.com]
Sent: Thursday, March 08, 2001 4:54 PM
To: 'john.gerry@expertune.com'
Cc: 'richard.barraclough@expertune.com'
Subject: FW: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh. req.

This message is in MIME format. Since your mail reader does not understand this format, some or all of this message may not be legible.

------_=_NextPart_000_01C0A822.B956C5C0
Content-Type: text/plain;
charset=iso-8859-1
Content-Transfer-Encoding: 7bit

> Hi John:
>
> Thought I'd better send you this good stuff before I forget again...
>
> 1. Attached is a copy of the GUS Wiz that I dev'd--it reads all avail.
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> list of algos. w/o unique identifiers,) and the ctlr action. On the ctlr
> action, this could be read in also if the Wiz Builder could decode alpha
> chars for this entry field, because what is returned from the CTLACTN
> parameter fetch is: "DIRECT" or "REVERSE." I would like to request alpha
> char. decoding cap. as an enh. of the Wiz Builder for the next vers. of
> ExperTune, for this field and the PID equation field (see next.) Also,
> for the PID ctl algo., it would similarly be useful if alpha character
> decoding were avail. for this parameter, because what is returned from the
> CTLEQN parameter fetch is: "EQA," "EQB," "EQC," "EQD." As you are no doubt
> aware, with just knowing the CTLEQN alone, one cannot determine which
> Honeywell PID Algo. is used since there are two different forms
> (interactive & noninteractive,) with Eqns A, B, C, D for each form.
> However, most APCI Honeywell TDC 3000 systems standardize on one form
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> indicate which equation is being used, then we could equate that to an
> algo. that is now in the ExperTune list of avail. TDC 3000 ctl algos.
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> follows, and one is missing from the ExperTune Adv. DCS Honeywell TDC 3000
> Library of algos (I think Eqn. "D"):
> "A" = Full PID
> "B" = PI on Err, D on PV chg.
> "C" = I on err, PD on PV chg
> "D" = Integral ctl only (admittedly rarely if ever? used)
>

> 2. Attached is also a more complete excerpt from the ExperTune user's
> guide that I wrote that has the chapter on configuring the GUS for use
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> Mostly screen captures, but still useful I think. I'll send the 1st part
> of this doc. in this email, then the 2nd part in a F/U email, since our
> email sys. is limited to a 5 MB max. file attachment.
>
> Think Spring!
> David
>
> <<HW_TDC3000 _GUS_APCI.xwd>>
> <<HW_GUS_XPT_Install&Run_Instructions_Part1.zip>>
>
> David B. Leach
> Engineering Associate
> Air Products and Chemicals, Inc.
> GEO Process Controls A32H3
> 7201 Hamilton Blvd.
> Allentown, PA 18195-1501 U. S. A.
> Ph. 610-481-8693
> FAX 610-481-4948
>

Envelope-to: richard@barraclough.u-net.com
X-VirusChecked: Checked
X-Server-Uuid: 0a59d787-ec29-11d2-907b-0008c7f41790
From: "LEACH,DAVID B." <LEACHDB@apci.com>
To: "'Richard Barraclough'" <richard@expertune.com>
cc: "'karen.walters@expertune.com'" <karen.walters@expertune.com>,
"'john.gerry@expertune.com'" <john.gerry@expertune.com>
Subject: RE: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh. req.
Date: Wed, 14 Mar 2001 18:53:25 -0500
X-Mailer: Internet Mail Service (5.5.2650.21)
X-WSS-ID: 16AEDBF7533062-01-01

Greetings Richard:

I tested ExperTune V10.12.14 at Honeywell Ft. Wash. with the GUS in Feb. I could not get the Wiz to recognize the difference btwn diff. text entries for either of these items. For example for CTLACTN, the text entries were accepted, however there was no actual recognition of the difference btwn "DIRECT" and "REVERSE," i.e., either entry of "DIRECT" or "REVERSE" yielded '0' for this param as I recall. I m not sure what vers. Karen would send me, I thought I had the latest prod. vers. w/V10.12.14 , there's no need to send another CD if the vers. I have is the same as current.

David

-----Original Message-----
From: Richard Barraclough [mailto:richard@expertune.com]
Sent: Tuesday, March 13, 2001 6:27 AM
To: LEACH,DAVID B.; 'John Gerry'
Cc: 'moulton@diagtools.com'
Subject: RE: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh. req.

David,

I have now checked the actual code instead of working from memory and in fact our production version of ExperTune already does a text comparison for both controller action and controller type. I remember changing controller type after I tried the wizard with Honeywell OPC in early January. I must have changed controller action at the same time. I will ask Karen to ship you a production release for serial #3451.

Regards
Richard Barraclough
ExperTune

At 12:16 09/03/2001 -0500, LEACH,DAVID B. wrote:

Hi John:

Thx much for responding so quickly and accepting my suggestions for enhancements to the Wiz Builder. The Wiz Builder is a great feature and I can see why you would want to protect that intellectual property with a patent.

I would like to get a copy of the new ExperTune version that contains the Wiz Builder that will accept alpha characters for both the ctl algo. and the ctlr action (direction), but only for lic. serial # 3451, so that we can test it for use in our Chinese project. No rush--see below for more comments on this project.

I agree with your decn to not add Eqn "D" to the list of supported TDC 3000 algos in ExperTune, because it is rarely used, and as you mentioned, there are much higher development priorities. Also, FYI we are not buying any more Honeywell TDC 3000 systems these days, we only need get into them when as in the current situation a customer requests that system and is willing to pay the premium for it. APCI does have many of them installed on the Chem side, however I've not been successful in getting Chem much interested in using ExperTune (that's a whole other story that I won't get into here.)

Also, pls give my thanks to Karen for express shipping copies of the latest prod. vers. of ExperTune to me last month, the one copy I wanted post haste was received in time for use in China. Don Kosciusko is using it now there, but unfortunately the Chinese have damaged our plant so badly with their construction crew that he will need to return again next week, probably not going back for another two months.

I'll mail the APCI custom Honeywell Wiz doc. CD to you.

Best wishes to all for a good weekend,
David

-----Original Message-----
From: John Gerry [mailto:john.gerry@expertune.com]
Sent: Friday, March 09, 2001 10:09 AM
To: LEACH,DAVID B.
Cc: Richard Barraclough; Geoff Moulton (E-mail)
Subject: FW: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh. req.

Dave,

A million thanks as always! both for your helpful comments and for sending the wizard.

Alpha character decoding for the controller algo is done! We will do the direction decoding in characters probably by next week, and then probably will put this into production.

Do you want a copy of it, if it is ready next week?

Since controller "D" is integral only, we do not currently have plans to add this algorithm to ExperTune software's list: 1) not used much, 2) any tuning would be for I portion only. Biggest reason is that we do not think it is used much and based on the amount of time it would take to add it, have other developments that we think would benefit more people with more impact ... priorities.

john

-----Original Message-----
From: LEACH,DAVID B. [mailto:LEACHDB@apci.com]
Sent: Thursday, March 08, 2001 4:54 PM
To: 'john.gerry@expertune.com'
Cc: 'richard.barraclough@expertune.com'
Subject: FW: Honeywell GUS ExperTune Wizard + Doc. & Wiz Builder Enh. req.

This message is in MIME format. Since your mail reader does not understand this format, some or all of this message may not be legible.

------_=_NextPart_000_01C0A822.B956C5C0
Content-Type: text/plain;
charset=iso-8859-1
Content-Transfer-Encoding: 7bit

> Hi John:
>
> Thought I'd better send you this good stuff before I forget again...
>
> 1. Attached is a copy of the GUS Wiz that I dev'd--it reads all avail.
> params that are now pos. to fetch in the TDC 3000 sys., and I tested it at
> Honeywell Ft. Wash. The only two items that cannot now be read in are:

> PID algo. type (can't discern for the gen'l user since there is a long
> list of algos. w/o unique identifiers,) and the ctlr action. On the ctlr
> action, this could be read in also if the Wiz Builder could decode alpha
> chars for this entry field, because what is returned from the CTLACTN
> parameter fetch is: "DIRECT" or "REVERSE." I would like to request alpha
> char. decoding cap. as an enh. of the Wiz Builder for the next vers. of
> ExperTune, for this field and the PID equation field (see next.) Also,
> for the PID ctl algo., it would similarly be useful if alpha character
> decoding were avail. for this parameter, because what is returned from the
> CTLEQN parameter fetch is: "EQA," "EQB," "EQC," "EQD." As you are no doubt
> aware, with just knowing the CTLEQN alone, one cannot determine which
> Honeywell PID Algo. is used since there are two different forms
> (interactive & noninteractive,) with Eqns A, B, C, D for each form.
> However, most APCI Honeywell TDC 3000 systems standardize on one form
> (interactive), so if we could fetch the CTLEQN parameter and decode it to
> indicate which equation is being used, then we could equate that to an
> algo. that is now in the ExperTune list of avail. TDC 3000 ctl algos.
> Also note that there are actually a total of four TDC 3000 PID algos, as
> follows, and one is missing from the ExperTune Adv. DCS Honeywell TDC 3000
> Library of algos (I think Eqn. "D"):
> "A" = Full PID
> "B" = PI on Err, D on PV chg.
> "C" = I on err, PD on PV chg
> "D" = Integral ctl only (admittedly rarely if ever? used)
>
> 2. Attached is also a more complete excerpt from the ExperTune user's
> guide that I wrote that has the chapter on configuring the GUS for use
> w/ExperTune, incl. screen captures for the GUS Wiz creation and usage.
> Mostly screen captures, but still useful I think. I'll send the 1st part
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> Think Spring!
> David
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> <<HW_TDC3000 _GUS_APCI.xwd>>
> <<HW_GUS_XPT_Install&Run_Instructions_Part1.zip>>
>
> David B. Leach
> Engineering Associate
> Air Products and Chemicals, Inc.
> GEO Process Controls A32H3
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> Allentown, PA 18195-1501 U. S. A.
> Ph. 610-481-8693
> FAX 610-481-4948

Envelope-to: richard@barraclough.u-net.com
X-VirusChecked: Checked

X-Server-Uuid: 0a59d787-ec29-11d2-907b-0008c7f41790
From: "LEACH,DAVID B." <LEACHDB@apci.com>
To: "'Richard Barraclough'" <richard@expertune.com>
Subject: RE: TDCDDE update times
Date: Fri, 16 Mar 2001 12:32:53 -0500
X-Mailer: Internet Mail Service (5.5.2650.21)
X-WSS-ID: 16AC91C553969-01-01

Hi Richard:

The update time prob. is not due to ExperTune, it's due to TPSDDE.

If users stay with the default values for the below params as entered automatically during TPSDDE installation, then they will abs. get no faster than a 5-8 secs. update, depending on LCN traffic loading. They need to take the time, as I did, to read the TPSDDE manual and try to understand the meaning of these params and how to set them. The prob. is that no one wants to take the time to read a 100 page manual that as usual w/Honeywell, does not give a "quick start" guide for those who want to get to the btm line of how to set all these wonderful params.

I think that with the display prints I have sent you for these params, we are getting around a 2 sec. update in the Chinese TDC 3K system that we are now working on. I cannot reco. setting all to 1K ms because I must admit that I've forgotten about all the ramifications of setting these params myself after 2 months.

Sorry, that's all I have the time for today on this topic, I'm averaging 100% over scheduling of tasks assigned to me these days (workload is a killer in this co.)

One Q about using text entries in the custom Wiz for ctlactn & ctlalgo-is it nec. to do something like enclose the text entry in single quotes, or specify it in a certain char. case when making the entry in the Wiz for it to recognize it properly? I recall that I tried using the '=' fn to recognize the text, but didn't enclose the text entry in quotes or anything. For example, for ctlactn, I did a read back using the Wiz gen for that entry and the actual param values returned by TPSDDE were: DIRECT or REVERSE. However when I spec'd =DIRECT or =REVERSE in the ctlactn entry, the Wiz could not recognize the diff. in the text values being returned fr TPSDDE. Could this maybe be an upper/lower char. case sensitivity prob.?

Thx and have a good wkend,
David

-----Original Message-----
From: Richard Barraclough [mailto:richard@expertune.com]
Sent: Friday, March 16, 2001 10:37 AM
To: LEACH,DAVID B.
Subject: TDCDDE update times

Dave,

We have had a number of ExperTune / TDC GUS users phone in and say that the
update rate within ExperTune is slow. They are using the TDC DDE Server. When they set HotLinks in ExperTune, a new value is arriving in ExperTune only every 5 to 8 secs. Have you seen the same effect, and if so have you successfully overcome it?

Looking at your setup instructions document, it appears that there are a number of fields that may be relevant:

Configuration Utility/Configure/TPSDDE/Default Value - Freshness field
Configuration Utility/Configure/TPSDDE/Default Value - Scan Cycle field
Configuration Utility/Configure/TPSDDE/Syntax Builder - Freshness Rate field
Configuration Utility/Configure/TPSDDE/Syntax Builder - Scan Rate field

Should these all be set to 1000 (= 1 sec)?

Thanks for any information that you may have.

Regards
Richard Barraclough
ExperTune

Envelope-to: richard@barraclough.u-net.com
X-VirusChecked: Checked
X-Server-Uuid: 0a59d787-ec29-11d2-907b-0008c7f41790
From: "LEACH,DAVID B." <LEACHDB@apci.com>
To: "'Tony Hartford'" <tony.hartford@kepware.com>
cc: "'richard.barraclough@expertune.com'"
<richard.barraclough@expertune.com>,
"'john.gerry@expertune.com'" <john.gerry@expertune.com>,
"LAWSON,WILLIAM S." <LAWSONWS@apci.com>,
"'donna.boudreau@kepware.com'" <donna.boudreau@kepware.com>

Subject: RE: KEPServerEx GE PLC Ethernet Driver: bit within word updated
d ll loaded & works OK
Date: Wed, 27 Jun 2001 09:23:18 -0400
X-Mailer: Internet Mail Service (5.5.2653.19)
X-WSS-ID: 172701C113700-01-01

Hi Tony:

FYI, I updated the .dll file in KEPServerEx drivers folder with the beta vers. that you sent me below, and was able to get ExperTune to read (but not write-I think this is an ExperTune prob., refer to below prob. descrip.) to the correct bit within the PID Algo. Control Word of a GE 90-30 Model 364 PLC, in order to determine the mode of a PID ctlr.

Donna: when the production vers. of KEPServerEx with the GE Ethernet driver is rel'd that has this bit mappable-addressing feature, pls insure that a copy is sent to me. I purchased the KEPServerEx lic. last week with the GE Ethernet driver (GE Ethernet Serial Number 1-20066-61389621236-3245,) so I assume that this will be a free upgrade.

John & Richard: I found problems in trying to get ExperTune and the Custom Wiz Builder working with this PLC and KEPServerEx to attempt to change the PID controller mode. The btm line is that I was able with ExperTune OPC Tuner to read bit 1 (where mode status is stored) of the PID Block's Control Word (the Control Word's offset from Control Block addr. for the mode read/write bit is +14.1) in order to read the mode. ExperTune reads in the ctlr mode (in my test case the addr. was 1055.1) correctly from this bit via the as-noted updated KEPServerEx GE Ethernet driver, reading this bit in as either True or False (verified by using the 'T' button on mode in Edit scrn.) 'True' corresponds to MAN mode, while 'False' corresponds to AUTO mode. However I could not get ExperTune to write out to this same Control Word bit in order to toggle the mode. Also, the ExperTune Custom Wiz Builder does not correctly save the specified ctlr mode read/write offset address, i.e., the Wiz Builder saves the entered +14.1 addr. as merely a +14 offset from the Control Block addr only, truncating the '.1' that is entered (I tried this several times with no luck, I just manually insert the .1 into the mode addr. in the Edit page after running the Wiz.) I've attached the resulting Custom Wiz Builder file for ref.

John: pls FAX the GE Series 90-30/20 Micro PLC CPU Instruction Set Ref. Manual p. 12-78, Table 12-9, to Richard so he has this background info. Richard: I'm using ExperTune OPC Tuner V10.12.18, just rec'd fr Karen on Mon. of this wk. Pls work with me to resolve this prob.--I can connect to the PC where all this good stuff is running remotely via pcAnywhere on request.

Thx much to all for your help and thx to Tony for sending me the beta vers.,

David.

-----Original Message-----
From: Tony Hartford [mailto:tony.hartford@kepware.com]
Sent: Tuesday, June 26, 2001 1:42 PM
To: LEACH,DAVID B.
Subject: bit within word updated dll

Hi Dave:

Close down your KEPServerEX application.

Paste the attached .dll into your c:\program files\kepserverex\drivers folder and the .hlp into \help.

As mentioned on the phone, you can reference bits by appending a period and the number 0-15.

To access the lowest bit in register 5:

R5.0

Call if you have any questions.

Regards,

Tony Hartford
Kepware
Sales
sales@kepware.com
phone 207-846-5881
fax 207-846-5947